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GAME NEWS



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PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XV, NO. 1

EDITORIAL

APRIL, 1944

IN THIS ISSUE

★

The Land Management Program
By Hon. Ross L. Leffler, President, Pennsylvania Game Commission

★

Hunting—English Style
By Lt. Col. Nicholas Biddle, Member, Pennsylvania Game Commission

★

Impartial Analysis
(A discussion of the Fox Problem in Pennsylvania)

★

Winter Feeding—Is it Really Necessary
By Helen Merritts

★

Quiz Program

★

To Have and To Hold
(A report on the National Wildlife Federation)

★

What Happened to the Hun?
By the Editor

★

Sportsmen versus Juvenile Delinquency
By Frank Jurczak

★

Comments on the 1943 Antlerless Deer Season
By Randolph H. Thompson

★

Notes from the Federation

★

With Those in Service

★

Cover
By Jacob Bates Abbott

PENNSYLVANIA CHALKS UP ANOTHER CONSERVATION "FIRST"

For the first time in the nation's history representatives of State and Federal Conservation agencies and civic groups were invited to pool their combined knowledge in an effort to help develop a progressive long-term land management program for wildlife purposes. They met for this purpose the afternoon of March 8 in Harrisburg with the Pennsylvania Game Commission, which is now responsible for managing over one million acres of land for wildlife.

Significant of the tremendous importance of the conference was the fact that His Excellency, Governor Edward Martin, an ardent conservationist, was present to welcome the various participants and to impress upon them the importance of pooling their knowledge in order to lay the foundation of a long-term program of managing wildlife lands, both from the economic and recreational standpoints.

President Ross L. Leffler, who issued the invitations for the conference, in his introductory address struck the keynote of the meeting when he informed those present of the numerous factors in the way of intelligent food and cover planting, essential lumbering operations to guarantee continued successive timber growth both for lumber and wildlife, erosion control, and other related activities so vital to a well balanced management program for the future.

Other prominent speakers, each contributing the benefit of long experience in dealing with various phases of the subject, included Mr. Walter Gresh, Asst. Chief, Federal Aid Division, U. S. Fish and Wildlife Service, Washington; Dr. Hardy L. Shirley, Director, Allegheny National Forest Experiment Station, Philadelphia; Dr. Fred Lininger, Director of the Agricultural Experiment Station at State College; Hon. Miles Horst, Secretary of the Pennsylvania Department of Agriculture, Harrisburg; and Dr. F. A. Pitkin, Executive Director of the State Planning Board.

Following the regular conference a general open discussion ensued, which was avidly entered into by all present. Organizations taking part in the conference included representatives of State and Federal Conservation Agencies, Research and Educational Institutions, Public Organizations, including the Pennsylvania Forestry Association, Pennsylvania Parks Association, Pennsylvania Federation of Sportsmen's Clubs, Pennsylvania Women's Clubs, Garden Clubs, and the Pennsylvania Nut Growers Association, together with interested individuals, members of the Pennsylvania Game Commission, its staff and representatives of the Press.

(See copy of Mr. Leffler's introductory address on Page 3)

Watch next month's issue for the highlights of the other speeches presented.

☆ ☆ ☆

BUY MORE WAR BONDS

L315824



Pennsylvania's State Game Bird, His Majesty The Ruffed Grouse, will benefit materially from the land management program.



Photo by W. L. R. Drake

Shown above from left to right are Members of the Game Commission, Messrs. Robert Lamberton, Franklin, Vice-President; Dr. H. E. Kilgus, Brockway; Harold Moltz, Williamsport; G. I. Phillips, Alexandria; President Ross L. Leffler, Pittsburgh; His Excellency, Governor Edward Martin, speaking; and Seth Gordon, the Commission's Executive Director.

The Land Management Program

Opening Address of President Ross L. Leffler to the Commission's First Statewide Conference On This Important Subject

FOR the first time in the history of this State, and in all probability in the history of the Nation, we have met here today to enlist the best thinking of our Commonwealth and Federal Conservation Agencies to devise ways and means toward the improvement and perpetuation of land management for wildlife. I welcome you to this pioneer conference to discuss this matter which we realize is a primary one for the Game Commission to solve, but one in which the Commission solicits your guidance and counsel.

I am sure you will all agree that Pennsylvania's reputation as the national leader in wildlife restoration is still unchallenged, but today no organization is so well manned with expert personnel that it might be considered self-sufficient. Consequently, we are presenting some of the problems which confront the Commission, in the anticipation that your organizations which are so highly skilled in the advancing of matters in your specialized field might be able to assist us greatly by pooling your knowledge with ours towards a furthering of the restoration and improved management of Pennsylvania's wildlife.

In order that we may have a common ground of understanding, let me relate quickly the historical background of the Game Commission insofar as it pertains to the problems of today's discussion. As early as 1890 a small group of fore-sighted courageous Pennsylvania conservationists and sportsmen awakened to the situation arising from the rapidly diminishing supply of game and other wild creatures. They persuaded the Legislature of 1895 to authorize the appointment of a Game Commission to develop a program to conserve the remnants of our former abundance of wildlife. At first, attention was centered upon better game laws and ways and means of law enforcement. At the same time a system of game refuges was started for the protection of wildlife which, throughout the years, has been constantly augmented until today we have a system of which we are justly proud.

Even in those early days, it was recognized that by providing wildlife with a favorable habitat in which to live and breed, unmolested by human or other enemies, a maximum annual increase could be expected. These refuges had only been in use for a few seasons when it was obvious that a given proportion of normal increase rapidly spread to the surrounding territories, giving additional sport to hunters in those territories.

The first game refuge was established on State Forest lands in Clinton County in 1905. Fifteen years later the number of Primary Refuges had increased to twenty-five, each with a full-time employee in charge. Nineteen of them were located on State Forests, and six on privately-owned lands leased for that purpose. Several Auxiliary State Game Refuges surrounded by open hunting territory were also established on privately-owned lands, without a full-time attendant in immediate charge.

Realizing that such leased lands could revert to their owners as choice private hunting grounds, sentiment developed for the purchase of suitable areas by the Game Commission with accumulated funds. Our land purchase program was started in 1920, and the Bureau of Refuges and Lands was created to supervise the entire lands system of the Commission. To this administrative unit was entrusted the job of purchasing, leasing, administering, developing and managing the lands under the Commission's control.

By examining the latest map of our land holdings, it will be observed that they are exceptionally well distributed throughout the Commonwealth in accordance with our objective. However, the bulk of our purchases are in large wooded areas or mountain counties, where frequently large acreages of

(Continued on page 26)



"Pep" a fine pointer owned by Lewis Clayton, Southampton, Pa. The dog is a splendid retriever.

Hunting— English Style

By Lt. Col. Nicholas Biddle

Americans Do Not Always Appreciate the Great Heritage of Hunting and Fishing Which Is Theirs

AT LAST I am doing what I have been intending to do for a long time, namely, write an account of the wildlife of Britain (and I don't mean the Army and Navy on Saturday nights!)

The game bird shot mostly in Britain is our friend the ringneck pheasant, which was introduced centuries ago by the Romans, and became known as the English ringneck or English pheasant, before they were introduced into the United States. Previous to the war, they were raised in great numbers on the large estates by the incubator-brooder system, as well as by natural methods.

The most popular method of shooting was by the use of beaters, who drove the birds towards the butts where the shooters were concealed—similar to the method of driving deer in Pennsylvania. The shooting is fast and exciting when the birds are coming overhead, and many shots are difficult, particularly to a person who is not accustomed to shooting high fast incoming birds—the tendency being to undershoot them. Often, the shooter will have an additional double-barrelled gun (automatics and pump guns are taboo), and a gun handler in the butts with him (I hear you smile) to load and pass him another gun when birds are coming fast, and many a bird is killed with the second gun which would have flown by the first gun if the shooter had to reload.

To those who have never shot "driven birds," this method of shooting may sound easy and tame, but I can assure you from experience in shooting both "driven" pheasants as well as over a dog, that the "driven" bird is the harder target. There is also pheasant shooting over a dog similar to our shooting in Pennsylvania, the most popular dog being a springer spaniel which works close to the shooter.

Pheasants inhabit both England and Scotland, and do well in the farm districts. Since the war, however, there has been practically no re-stocking of birds, and the "driven bird" shoot has been, to a large extent, temporarily discontinued.

The most popular native game bird of Scotland, however, is the grouse which inhabits the moors in hilly and mountainous country. It is a good-sized bird somewhat similar to our ruffed grouse, stays mostly in coveys, and is a fast flier when flushed. There are two varieties, namely, the red grouse—dark reddish without white, and in the Spring, a conspicuous red patch over the eye. Its length is 14-15 inches, and it is largely dependent on shoots of heather for food. The larger variety is the black grouse. The male is blue-black in color with white wing bar, the tail characteristically lyre shape, and when full grown its length is 22 inches. The female is chestnut brown freckled, and barred with black with forked tail. She is smaller than the cock, her length when full grown being 15 inches. Grouse are found in scrub and sparsely wooded places fringing moorlands. Both varieties are resident of North England and Wales, as well as Scotland.

"Driving" is also the most popular method of shooting them, although they are frequently hunted with springers, golden retrievers, and other close working retrieving dogs. The war has also curtailed the driven grouse shoots, due to lack of shooters and beaters, who are either in the armed services or other essential war work.

Other game birds of Britain are partridge, caper-caillie, woodcock, snipe, ducks and geese.

There are two varieties of partridge—the common partridge, and the red-legged partridge. The upper part of the common partridge is brownish gray with a yellowish chestnut throat. The lower breast has a horseshoe shaped patch of dark chestnut in middle, while the legs are gray to yellowish. Its length is 12 inches. The red-legged partridge has a black streak bending from base of bill by eye in a circular line around throat, and has red marks at side of breast and red legs.

The common partridge inhabits both England and Scotland, while the redlegged variety is a resident of North England and Wales.

The caper-caillie is a large bird, the male being 36 inches in length, and the female 26 inches. The cock is almost black, somewhat glossy, while the female is blackish brown with orange buff bars, and tail barred broadly with black. It is found in woods, chiefly coniferous, and is a resident of Scotland.

Ptarmigan are sandy gray in summer, and almost entirely white in winter, except for black tail with white tip. They are 14-15 inches in length, and found near the tops of Scottish mountains.

The most common duck is the Mallard. Other surface feeding ducks are Gadwall, Widgeon, Pintail, Shoveler, Teal, Garganey, and Sheld Duck.

The Garganey and Sheld Duck are not familiar to American sportsmen. They are somewhat similar to Teal. The Garganey has a broad white eye stripe extending to the back of neck, with a brown breast. The female is much like a female Mallard only smaller. The drake can be distinguished from the Teal when it flys away, and the white eye stripe has not been seen, by the light blue color of the shoulders of the wing. The female is lighter in color than the female Teal and more slender in build. The Sheld Duck is a large species, being 25-26 inches in length. It is white with a green head, and a chestnut band around its breast. It has black on belly and wings, and a bright red upturned bill, the male having a large knob at the base in breeding season.

Diving ducks include Eider, Scoter, Golden Eye, Scaup, Pochard, Tufted Duck, and Longtailed Duck.

The last three species are not seen in the United States. The male of the Pochard has a bright chestnut red head and neck with a gray back and black breast, and the female has a black to dark red head and neck with a back inclined to be grayish; the iris is dark, and the feet are greenish gray.

Both sexes of the Tufted Duck have a dependent crest, not always visible in the female. The upper parts and the breast of the male are black, while the underparts are white. The female has black upper parts and head. The iris of this duck is yellow, and the feet light gray.

The male of the Longtailed Duck has a very long tail. In winter, the head is white with a black spot on cheek. The head and part of back is blackish brown. In summer, the color is brown with a large patch on side of head, and white belly. The female has a normal tail, the head is white except for a dark brown crown and patch at side, the underparts are brown. The male does not always carry the tail erect, and usually keeps well away from shore. This is the noisiest of all sea ducks, having a curious constantly repeated loud ringing call. The three species are all about 17 inches in length.

There are three varieties of wild swan, and seven varieties of wild geese. The Canada goose, with which we are familiar, was originally confined to private parks, but has bred so freely during the last fifteen years it may be seen in flocks of wild geese and ducks.

There are numerous song-birds in Britain, also swallows, woodpeckers, kingfishers, cuckoos, owls, hawks, wood-pigeons, doves, herons, rails, plover and other waders, auks, petrels, terns, gulls, gannets, cormorants, sawbills, divers and grebes.

The game animals of Britain include rabbits, hares, roe-deer (roebuck), and red-deer (stag).

The roe-deer is the native species of deer, and is now found in Scotland where it inhabits thick woodland undergrowths, and roams singly or in small herds. The height of an adult at the shoulder is a little over two feet, and weighs 50 to 60 pounds; its color is dark reddish brown in summer, changing to yellowish gray in winter, with a large white disk on the rump and very short tail. The antlers of the buck are very close together at their basis, very upright, and rarely more than a foot in length, each possessing three branches, two forward and one backward. As venison, the flesh is not highly esteemed.

The red-deer is also a native of the British Isles, and is found in the forests of Scotland and Ireland; it provides exciting sport for deer stalking or coursing with dogs. The stag (male) usually stands over four feet at the withers, and has a rich red brown body, the neck thickly coated with gray, and the antlers curved and symmetrical which grow to the length of three feet.

A stag is known as a Royal Stag, when it has antlers with twelve or more points. The corresponding animal in North America is the wapiti or elk which, however, is larger than the British and European stag.

The hare is the size of our Western jack-rabbits, and can run like a racehorse. The common hare, which is brown, is very plentiful and is widely hunted. There is another variety known as the blue hare which is found in Scotland, and turns white in winter. These are very plentiful on the moors, and provide good sport when grouse shooting.

Editor's Note: Last month we told you we were going to run a story on hunting in England as experienced by Commissioner Lt. Col. Nicholas Biddle, Bethayres, who is serving with our armed forces in the British Isles in the capacity of Inspector General. Well, here it is, and I think you'll agree that the Commissioner has done a splendid job of entertainingly and informatively introducing as to English and Scottish hunting. Thanks a lot, Colonel Biddle, and here's hoping that you'll soon be back in good old Pennsylvania helping the Commission to "embark" on another great objective—that of advancing the grand old sport of hunting in the Keystone State.

I have been fortunate enough to have been able to take a few days off shooting between August 15 and December 15, when most game may be hunted, and my bag has included nearly all varieties of game.

As the guest of my friend John Findlay, I have walked the moors and climbed the steep slopes of the hills near Crawford, Scotland, and shot grouse, rabbits, and hares. Often we hunted in a drizzle or downpour of rain, but now and then the sun would come out from behind the threatening clouds, and we would have a short spell of glorious sunshine. This is typical of Scottish weather. We also shot snipe in the bog-lands, and partridges in the nearby farmlands. While on the moors, you will continually jump hares which will streak away, and if not shot, will sit upright on their hind legs and view the shooter before starting off again.

The Port Commander and I had two fine days shooting, as the guests of Mr. Matthew T. Buchanan, on his property near the Trossachs in Scotland. In August, we shot Mallard Ducks on Lake of Monteith. The Port Commander and Mr. Buchanan sat in the boat on the Lake while I went with a guide and a springer spaniel in the marsh nearby and flushed the ducks, which were shot between the two parties. In September, we had a splendid day of upland shooting, and our bag included 18 pheasants, 2 woodcocks, 10 rabbits, and a hare. On this occasion, we jumped a small herd of roe-deer which bounded off ahead of us like overgrown hares.

In order to carry a gun you must obtain a gun license costing ten shillings ($2), also a license to kill game costing from one to three pounds ($4 to $12), depending on the duration.

There is no opportunity to shoot unless you are the guest of the landowner, who controls the shooting rights or of those who lease the shooting rights. As a result, comparatively few of the population own shot guns or rifles. This was the reason why, in the early days of the war, we sent over thousands of sporting firearms to Britain to help arm the people against the threatened German invasion. Since then, the Home Guard has been equipped with the Springfield rifle, and is trained and ready for any emergency.

The U. S., British, Canadian and Allied Armies in Britain are now practising for a different kind of shooting! The game no longer are the birds and animals of the fields and forests, but gray-helmeted Nazi soldiers, while ducks and geese flying overhead have been replaced by fighters and bombers. There are no bag limits, and no closed season. In place of sporting shot guns and rifles are automatic rifles and machine guns.

The enemy, in spite of tremendous losses, is a long way from being beaten, and they are going to throw the best they have against the attack in the West. It is a tremendous undertaking to land successfully and hold beachheads against fortified positions, and the losses will be heavy before victory is achieved.



Photo by Lauver T. Shirk
Mr. and Mrs. Leroy Melott, of East Waterford, with trophies bagged last season in Potter County—he a 9-pointer; she an 8-pointer.



George M. Carl, of Harrisburg, Rt. 3, with large moose killed in Canada September 16, 1943.

★ ★ ★

When a U. S. sportsman wants to seek new coverts his Canadian neighbors welcome him with open arms, and vice-versa.

IMPARTIAL ANALYSIS

Editor's Note: One of the most intelligent, constructive and fair-minded analyses of the acute predator problem which exists in Pennsylvania is outlined in the following account reprinted from the splendid hunting and fishing column of R. H. Hood in the Sunday Independent. Wilkes-Barre, January 30, 1944. Whoever wrote it deserves a lot of commendation and we hope he receives it.

THE following letter is complete and self-explanatory:

After following the articles in the Sunday *Independent* by R. H. Hood (Hunting and Fishing), which I look forward to every Sunday morning and I believe many others do likewise, I feel that it is the duty of every sportsman to be whatever assistance directly or indirectly that he can to the cause of conservation in this Commonwealth.

The predator situation, particularly the fox, has without doubt become one of the game commission's No. 1 problems. For, from what I can learn, the abundance of fox is statewide and not confined to any one particular area, and I cannot help but feel that such a noticeable increase in the fox population could not take place overnight. This increase has been gradually but definitely advancing for the past three or four years. Any measures that the game commission or the sportsmen feel fitting and proper will not in my opinion correct this condition in a short time.

In the first place, it will be difficult to get adequate equipment, whether it be traps, snares, or dogs. Secondly, the skilled fox trappers are few and far between, and we as sportsmen are consistent to say the least. Whenever we have a discouraging problem such as the one confronting us now, we are ever willing to criticize the game commission for its shortcomings. I agree with you that they have made their mistakes, but just who has a better right to make an occasional error in judgment considering the rapid growth and the many advancements they are endeavoring to carry out.

Bounties Failed

A large number of the sportsmen feel that this fox condition can be corrected by payment of bounties. Let's look that recommendation over from a few of the angles. Which species of fox predominates in our territory, the red or the gray? As a matter of fact the gray fox has been materially increasing in this territory for the past six or eight years not withstanding that the game commission has paid a bounty of $4 on the gray fox during this time, and that is the maximum amount allowed by law as I understand it. Now it would appear that bounties have failed to regulate with reference to the gray fox. If it has failed in the gray fox, would it not be reasonable to assume that the same condition would have existed with regard to the red fox. Of course, there has been no bounty paid on red fox in this territory for quite a number of years. Yet the increase in the red fox in my opinion has not been as noticeable as has that of the gray.

At this time I do not wish to be misunderstood. I am in favor of bounties, but not in their present form. We have, I believe, a large number of fox killed by hunters while hunting for large and small game, killed on the highways, and by the farmer to protect his poultry that would have normally been killed without regard to bounties.

Aid Professional Trappers

The professional trapper, the man that in my opinion is the control measure in this predator condition, has never had any consideration worthy of mention from either the game commission or the sportsmen. The sportsmen and the game commission should be willing to pay the trapper adequately when he masters that art, and let me tell you it is an art, for his services and put a proper bounty system into effect that would recompense the skilled trapper consistent with any other skilled profession. The services of such skilled trappers could be recognized, and when they receive that consideration, you will see the expert trapper trapping to the interest of the sportsmen and the game commission. I do not think until then will he trap in any other way than he has in the past, that being to his own personal interests largely. That is he regards his fur crop as a farmer would regard his farm crops. He traps when the furs are at their peak in value. When they start to decline in value due to unprimeness, bleached or rubbed fur, or he feels that he has but sufficient seed stock left, he picks up his traps and if the fur market is not of a fair price, he does not set his traps at all.

Now let's look at the fur market for the past four years, this year excepted. What could you get for a good red fox pelt? $1.50 to $3.50, an exceptional $5 one. This is very little more than was being paid for a good muskrat pelt and in some cases it was less. Of course this year, as I stated, was an exception. The average red fox pelt was worth about $10 or $12 this year, and it would be natural to believe that that would be sufficient incentive for the professional trapper to again go to work.

Uncle Sam has required the services of many of those young professional trappers. Others remaining have perhaps been employed in well paid defense jobs and the novice has not been too successful. That in my opinion just about accounts for the increase in the fox population, and if you want to correct this condition start now to encourage proper individuals in predator control work, but be sure that you are going to see him through when the fur prices are below normal by paying for his services through the form of bounty.



Gray Fox

Somebody Is Trapping

Of course, there are many of the sportsmen who feel that the number of trappers that are trapping this year is not sufficient to make any noticeable inroads on the fox population. That I believe is true so far as strictly fox trapping is concerned, but how do you account for the abundance of other raw furs that have been trapped this year. The fur buyers will tell you that they have bought more raw furs this year than for a long time. This raw fur, however, is made up chiefly of muskrat pelts, so it would appear that we do have numerous youths trap-

Shows Duty of Sportsmen as Well as Commission on Fox Problem, With Some Suggestions for Both—and a reference to the Fox's Good Qualities

ping, and I would like to see the game commission do as they have done in the years past, put on one or two expert trapping instructors to travel throughout the state to properly instruct the novice fox trapper. I am certain that many of these ardent muskrat trappers would be glad to take up fox trapping if they could avail themselves of the necessary knowledge, and when we get this young group of fox trappers up in the professional class where their efforts will make inroads on the fox population, let's not make the same mistake twice of forgetting about the vermin control man, the trapper.

I do not feel from reading some of the recent announcements made by the game commission that it is their wish to exterminate the fox, but rather to take appropriate measures to bring about a control or a balance, as there certainly is room enough in this grand old state for every individual to enjoy his favorite sport or passtime, whether it be grouse hunting or fox hunting.

There are certain groups of individuals banded together for the running of fox with their dogs in packs. Legislation was passed favoring these groups of individuals, and if I read the law correctly, the commission has no discretionary power in the matter, but rather it is mandatory that they issue permits upon proper application to such groups for the running of their dogs practically the entire year on fox, while the rabbit hunter, grouse hunter, or coon hunter can only run his dog from the 20th of August until the last of March. Why is it necessary for such sportsmen to ask for preference in their favorite sport when the money from the game fund is used to stock rabbits and birds over the entire state, which I understand are a delicacy with the fox?

The Beneficial Fox

There, of course, is another school of thought, perhaps backed up by statistical data, that the fox is highly beneficial in as much as he destroys mice, moles, shrews, and other rodents. This I am convinced is absolutely true. The fox does enjoy feeding upon the mice, and of course there are federal agencies who will tell you, and I think rightfully so, that the mice also are beneficial as they are one of the worst enemies of the gypsy moth by eating the larva of the moth. So it is rather evident that there is some good in everything, but I would like to know just what this highly beneficial fox is going to exist on when the mice, moles, and shrews are exhausted, and I am here to tell you that the population of mice in the woods today is considerably less than it was a year or two ago.

The observation was made by one who makes numerous trips afield. I think the fox, before he starves to death will enjoy living upon the grouse, rabbits, and ringnecks that are protected and propagated by and from the funds contributed by the sportsmen of Pennsylvania. I feel that the sportsmen, through the purchase of hunting licenses, have done more for the cause of conservation than the average nonhunting individual fully realizes. They pay for the protection to your song and insectivorous birds, something that is a direct benefit to every existing individual. They have purchased and maintained thousands of acres of publicly owned land, the title being taken in the name of the Commonwealth, and its use is for the healthful recreation of all, be it hunting or fishing matters not.

Sportsmen Aid Many Ways

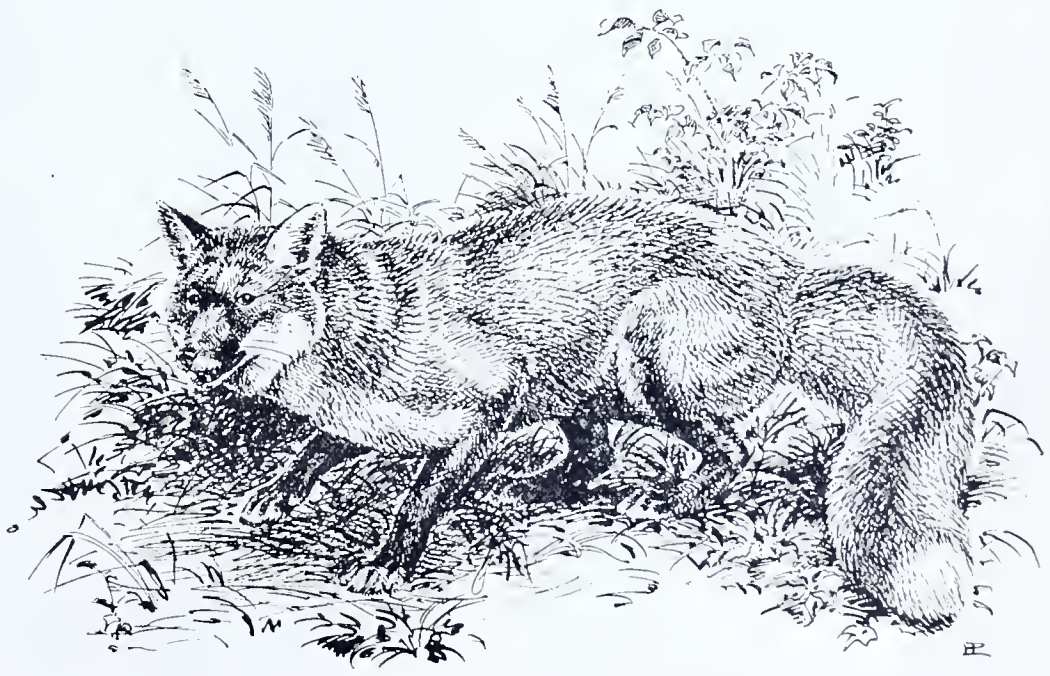
They have done much on flood control by reforestation on the headwaters of your water sheds. Their full effects will not be realized immediately as it takes years to grow a tree. They also contribute unselfishly from their time and funds to the prevention of forest fires, and believe it or not everybody loses when timber burns.

There are many other direct and indirect ways that the sportsmen of Pennsylvania are financially paying the bill on the cost of conservation, which will assure your children's children of a place in which they can enjoy their favorite sport for years to come. They do this unselfishly and just why some groups feel that they are privileged over and above the average sportsman, the man who is paying the bill, is quite beyond my comprehension.

Our sportsmen's organizations are usually made up of sportsmen banded together for the betterment of hunting and fishing and conservation in general, and much good has been done by the various sportsmen's organizations as well as, I believe, some harm, for they are usually over-eager to criticize, as we are usually over-eager to criticize the game commission's shortcomings. There is, of course, a lot to be gained from constructive criticism, but a lot of this criticism that has been flying around thick and fast in the past I do not believe could be termed constructive criticism, and after all could not the game commission and its employees, our servants, do the job for which we are paying them much better if they were not on the defensive the greater portion of their time? In other words, if the game commission could devote its entire time to constructive conservation and a minimum on defense, I think many of these problems would not be confronting us today.

Last but not least, I am just as much confused as are other average hunters perhaps, as I believe in sportsmen's organizations. There is an absolute necessity for their existence, but the good the organization will accomplish is largely dependent upon its leadership and the cooperation that the officers receive from the membership, but where the confusion comes in is that the sportsmen criticize the game commission on this fox problem, and yet their head officer of this district, if my memory serves me correctly, took a definite stand at the federation meeting at Harrisburg in favor of the fox. It is not unreasonable to believe that the game commission perhaps was influenced in no small way by the recommendations of the officers of the federation, and this is as it should be. The game commission should, I believe, listen to the suggestion of the leaders of the organized sportsmen, but we should not take them for a buggy ride. We should know our topic before we are willing to make recommendations.

Now just who is to blame for this fox condition? I doubt very much if we as organized sportsmen taking inventory of ourselves can sincerely and honestly criticize others. Regardless, we have a job before us. Let's not try to correct it through the medium of wishful thinking, but think this problem through and then act and bring it to a successful conclusion. Let's not blame someone else for our own short-comings.—A VIEW FROM THE BLEACHERS.



Red Fox



Photo by W. L. R. Drake
Bobwhite quail dug from imprisonment in a snow drift.

WINTER

Is It Reall

By Helen Merritts

THE value of winter feeding to game birds has been a disputed subject with sportsmen and conservationists for the last decade. It is generally believed that the birds cannot get through the winter unless they are artificially fed, or that if they do survive the winter without this aid they will be too weak to mate and produce young the following season.

Just how much starvation a species can endure depends upon how fast the body, forced to go without food, can break down and use as nourishment the material stored in the form of fat and flesh. This metabolic rate is influenced by nine factors. Four of these—race, size, age, and sex are individual characteristics, while the other five—season, temperature, humidity, air movement, and light are environmental in nature.

In the late winter and early spring of 1940 and '41, Richard Gerstell, Chief, Division of Propagation and Research, Pennsylvania Game Commission, along with other Game Commission technicians conducted a system of out-of-doors and laboratory experiments to determine the length of time various birds and mammals could survive without food. This article is concerned only with the results of the experiments with birds.

A weather chamber called a climoactometer, approximately twelve feet long, eight feet wide, and five feet high in which almost any type of weather can be simulated was used for the laboratory studies. The temperature can be made to range from —35° to +120°F., and wind velocities up to twenty-five miles per hour can be produced by a rotary blower. There are also arrangements by which the amount of moisture in the air and the intensity of light in the chamber can be regulated. Mist, light rain, or a heavy downpour can be produced by varying the pressure in a series of pipes which compose the precipitation system of this weather box.

For all of the investigations made in this series, check or control specimens were used for comparative purposes and once the tests were started, food and water were furnished only to the control birds. In the out-of-door studies the experimentals usually had access to water in the form of snow or rain.

Both experimental and control birds were weighed every twenty-four hours and losses or gains carefully recorded. Visual checks were made several times a day and the dead birds removed; that procedure enabling the investigators to secure survival records with an error of, at the most, 6 hours.

In the out-of-doors tests, the birds were confined to holding pens of lumber and wire mesh in which there was no provision for them to find protection from inclement weather even though the experiments were conducted in the winter. The control birds were placed in pens adjoining those of the experimental birds to insure that the environment would be the same for both.

In the laboratory certain methods of procedure were arbitrarily selected. The birds were divided into groups, two experimental, A and B, and one control group, C. The experimentals were confined to the weather chamber; group A at 0° temperature with a wind of 5.8 miles per hour and the other, Group B, at 0° temperature also, but with no wind. The control group, C, was penned in the room which housed the climoactometer and where the climatic conditions except for lack of rain and snow were found to estimate roughly "standard" winter conditions. The 0° was chosen as a test tempera-



Photo by C. Gordon Krieble
A male ringneck feeding on an ear of field corn placed on the sharpened end of a twig.

FEEDING

Necessary?

Editor's Note: This is the first of a series of articles condensed from Research Bulletin No. 3, titled "The Place of Winter Feeding in Practical Wildlife Management" by Richard Gerstell, Chief, Division of Propagation and Research. Part 2 will appear in the May issue. While we wish to avoid being technical, we believe it wise in this initial article to show our readers exactly how the physical tests are made. In subsequent articles only the actual findings will be given, because the scientific approach is relatively the same.

ture because it represented an unusually severe temperature and one which is not often encountered by the birds in normal winter conditions. Thus, the length of time they could live at this temperature, would prove a comparative basis for the life expectancy under normal winter temperatures. That is, if the bird lived five days without food at 0° it could be expected that at temperatures ranging from 20° to 35° the bird would live longer, regardless of the lack of food. All temperatures were taken on the Fahrenheit scale.

The ringneck pheasant was chosen for the first experiment because it is a well known game bird and one for which many winter feeding programs are planned. The individuals chosen for this study as well as for most of the following were of two strains; part of them were trapped, wild-reared birds from wild parents, and the other consisted of artifically reared stock from a game farm. It should be noted here that studies by Mr. Gerstell and Mr. Roger Latham started in 1938 proved that there was a wide difference in the abilities of the two strains to withstand severe weather.

The first experiment with pheasants was an out-of-doors fasting test conducted with 50 farm-reared, mature, healthy birds, one-half males and one-half females. Two groups of twenty-five each were selected, one, the experimental lot contained 13 males and 12 females while the control group was comprised of 13 females and 12 males. The experiment started on February 1, 1940 about 10:00 A. M. and from then until the morning of February 21 when the test ended, the experimentals received no food and only such water as was provided by rain or snow. The control group was supplied with scratch grain and water to which they had constant access.



Hungarian partridges leaving a shelter constructed of corn fodder.

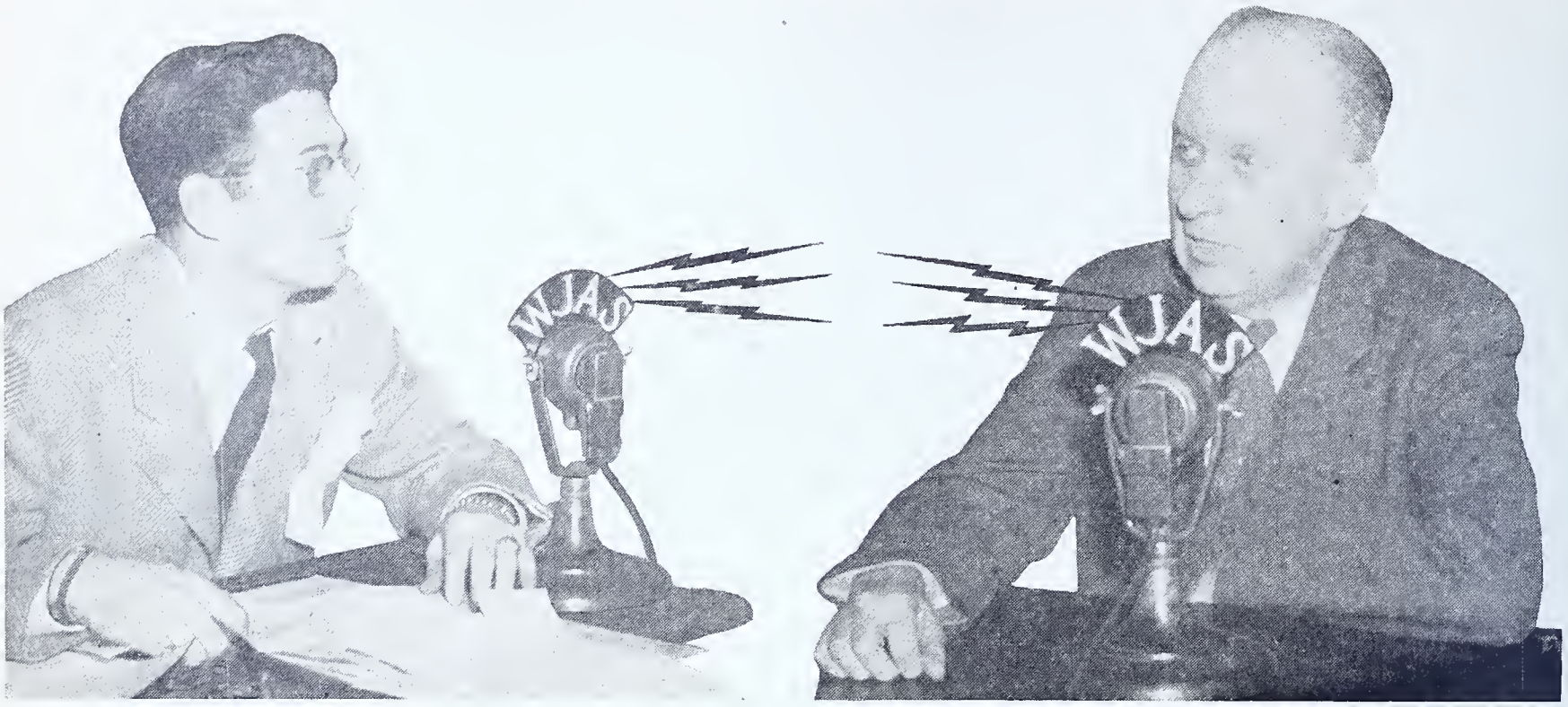


Ice storms in combination with heavy snows reduce the availability of wildlife foods to a minimum.

The weight of a bird indicates its general condition since, in the absence of food, they have only the stored nourishment of their own bodies from which to draw. Therefore, the daily weights provided information about the progress and effects of the fast. As would be expected, the fasting birds lost weight steadily; however, the first deaths did not occur until February 14 after more than 12 days without food. Just before midnight on the 13th a severe blizzard started, accompanied by high winds and 17 inches of snow, and on the morning of the 15th, or at the end of almost two weeks, 13 additional birds died. The others died at varying intervals until the 20th day of the test when the last specimen succumbed. The average period of survival was just over 14 days. At the conclusion of the test period on February 21, the control birds showed an average weight loss of 6.2 per cent while for the experimentals, it was 36.2 per cent. During this period, out-of-doors temperatures ranged from 2° to 57° and there were six days of rain and two of snow.

It's important to note that the average body temperature taken in the gizzards of ten experimental birds on February 7 was 108.5° while the average temperature of the controls was 109.1°. By February 14, the temperature of the experimentals had dropped to 103.7° while that of the controls was still up in the safe level at 108.5°. Since the normal temperature of the birds varies

(Continued on page 28)



Bob Prince, Sports Announcer

Hon. Ross L. Leffler, President, Pennsylvania Game Commission—a guest speaker

QUIZ PROGRAM

YOUR editor happened to be in the western part of the state the other day and learned that there really is more than one way to skin a cat. Without any premonition of what he was getting into, he found himself the guest of some of the officers and directors of the Allegheny County Sportsmen's League at a Wednesday (every Wednesday at 6:00 P.M., by the way) evening broadcast over Radio Station WJAS, in which the highlights of sports, particularly of hunting and fishing, were presented for the benefit of the hunters and anglers in that area.

The League, through the courtesy of the Fort Pitt Brewing Company, is given the opportunity to present guest speakers in an informal quiz program during which questions on various subjects relating to fish and wildlife sent in by interested sportsmen are presented by Bob Prince, sports announcer on the program, and answered by the visiting representative.

All in all the experience was very enlightening, and at the same time educational. The whole program was conducted in an informal manner, both the announcer and his guest avidly taking part and pulling no punches in the doing thereof. One appealing feature was the fact that all answers to questions asked were acknowledged as pure and simple expressions of opinion of the interrogated person himself, thus leaving open to discussion even controversial subjects affecting current and future fish and wildlife programs.

In order that sportsmen's groups and individuals in other parts of the state may "sit in" on and derive some benefit from the program, through the cooperation of the Allegheny Sportsmen's League and the program sponsor, we hope to reprint from time to time some of the questions and answers which are entertained. If you have any of your own in mind I am sure the League will appreciate hearing from you. Address your communication either to Mr. J. L. Carey, President, Allegheny County Sportsmen's League, Inc., P. O. Box 536, Pittsburgh, or to Bob Prince, c/o Radio Station WJAS, same city.

Following are some of the questions and answers from these broadcasts:

Q. Would it be possible to organize all out-door boys and girls to plant walnut trees and various fruit trees for our song birds? Would it be possible to receive trees and cooperation from the Game Commission?—Pete Krass, Carnegie, Pa.

A. A tree planting program using either nuts or seedlings would be a very worthwhile undertaking, especially for Boy Scouts and Junior Sportsmen's Clubs. Mr. John M. Phillips, one of the State's first conservationists and a former member of the Game Commission, has not only advocated such a program but furnished thousands of trees to help carry it out. Unfortunately the Game Commission does not have a nursery from which to supply them, though possibly some of them could be obtained from the Department of Forests and Waters.

Q. Since Allegheny County is the biggest County in our State as to hunting and fishing licenses, why don't we receive more for our money?

A. If allocations of game, for instance, were made on the basis of the number of hunter's licenses issued in a county such as Allegheny or say Philadelphia, there would be no room in the county to stock all that the money could buy. Thickly populated industrial areas are also limited as to the kinds of wildlife they can support in the comparatively small shooting areas available, and for that reason a great many gunners in such metropolitan areas prefer to hunt in adjoining counties, even those remote from home.

Q. Are grain and other foods being distributed at the Pymatuning Sanctuary during the open season for wildfowl, and if so, is such action fair to the hunters who, by the purchase of duck stamps and taxes, support the propagation of wildfowl?—John F. Koeper, Mount Oliver, Pittsburgh.

A. It is true that ducks have been fed at the Sanctuary during the shooting season in order to attract and encourage the birds to look upon the area as a feeding and resting area.

Perhaps the feeding program has been pursued too assiduously during past shooting seasons, but not by any means to limit the hunter's sport. The question certainly has merit and now that the area has become a haven for waterfowl the Game Commission may well consider discontinuing the practice during that period which will result in an overflow of birds to surrounding waterways in search of food.

Q. Has the Game Commission taken any action such as the increase in the bounty on the fox and great-horned owl as a means of aiding the restoration of grouse and other small game?

A. The Game Commission is not entirely satisfied that bounties are the solution to the predator problem and has not taken any action yet on a possible increase of

bounties on birds or animals on which a reward is now being paid, such as gray foxes, weasels, or goshawks, or the establishment of bounties on other predators on which no reward is paid at present. Many predators are killed incidental to other activities, such as hunting, trapping, and the protection of livestock and poultry, and it is possible that the sportsmen themselves could well play a major roll in helping control them by taking a more personal interest in helping keep favorite shooting areas free of predators. Fox hunts, crow shoots and the like offer just as much sport if not more than hunting game, and such off-season shooting, if practiced more extensively, would not only help keep undesirable species in check but the hunter in good shooting practice. In other words, sportsmen should be just as interested in controlling the enemies of game as they are in shooting the game itself.

Q. Why try to make an outcast of the world's greatest domestic pet, the cat? On Tuesday the statement that snakes were to be preferred as better mice killers than the cat was so absurd that it makes an intelligent listener over your radio period see Red.

Full and intelligent information should be obtained before a radio speaker makes statements, especially derogatory ones' upon a subject against an animal or person who cannot speak in his own self defense. Is that a good sport may I ask?

You will find in historical research work that the cat has been revered and held as sacred in Egypt since the beginning of historical data.

Do you know that England has placed her cats in War Service Work? The cat is saving England millions of dollars every year by killing rats and mice which are destroying food products. Reference—Read last Sunday's *Sun. Tele. Magazine.* Also note the clippings enclosed from a recent issue of the *National Humane Review* to verify this fact about England's cats. False statements are continually made by the misinformed or the non-informed about cats.

"Cats have nine lives?" Untrue, ask any good Veterinarian.

"Cats are sneaking"; untrue. They are afraid.

"Cats steal"; not when taught right and wrong. Can you say the same of man?

"Cats are dumb"; no, they are very intelligent and clean.

"Cats are killers of wildlife"; no, they are not killers. They seek food. God gave him this means of livelihood. Feed them and they don't seek game. How about man? Does he hunt for the sport of killing or is he hungry?

A movement to protect the lives of cats would be a patriotic gesture. They should have lawful recognition and protection. Be a good sport and sponsor this movement.—Grace Phillips.

A. This question condemns through misunderstanding a practice which we believe is not as prevalent as appears on the surface. In denouncing the cat the Commission has repeatedly referred only to those half wild, half starved creatures which have been left on their own, not the city dwellers' pet nor the landowners' mouser. Too frequently unwanted cats are taken out along a country road and dropped off, a practice which is not only inhuman but illegal, and the Game Commission may impose a fine of $25.00 for the offense.

Q. Having been a hunter of both big and small game over a period of years I am most interested in your radio announcement concerning a series of lakes and ponds in the Pittsburgh district. Can we hope that this program for lakes will be conducted within the next year or two?—R. J. Westerman, Crafton, Pittsburgh.

A. The Commission is hopeful of creating such lakes and ponds wherever possible on its state game lands everywhere throughout the Commonwealth as soon as manpower will permit. When that time comes Allegheny County will receive its fair share of consideration in this respect.

Q. It has been stated that does do not eat oats as it appears in the lyric of the song entitled "Mairzy-Dotes." Is this so?—Miss Bette Fitzsimmons, Mt. Lebanon, Pittsburgh.

A. Deer are chiefly browsing animals, feeding upon the tender buds and twigs of various trees and shrubs. They eat other foods at times, even hay or grain placed for them in the wintertime. However, they do not prefer it, nor do they thrive well upon it.

Q. There has been discussion among the hunters that the caliber of guns used for deer hunting in Pennsylvania is to be regulated. Is there any truth to this rumor, and if so what will be the largest caliber of gun permitted?—Lon H. Grant, Pittsburgh.

A. At the present time all caliber of rifles are permissible in hunting big game in Pennsylvania except the .22 or .25 caliber rimfire. A .22 high-power center fire is permissible. There is no likelihood of these regulations being changed for the present.

Q. As one of the Victory Gardeners last year I was sorely tried by the inroads to my garden by both pheasants and rabbits. What assurance, if any, may we have that this situation will be corrected in the current year?—L. K. Kress, Homewood, Pittsburgh.

A. Every attempt is being made by local game protectors, sportsmen and Boy Scouts to live trap and remove rabbits from Victory Garden areas, city parks, the grounds of various institutions—anywhere they may not be hunted, and where they actually become a nuisance—and transfer them to other sections in the county where public shooting is permitted.

Q. Why did the Game Commission declare an open season on both bucks and does simultaneously in the year 1940 to the evident injury of the deer herd?—John A. Theobold, Overbrook, Pittsburgh.

A. The season was declared because the deer population had become so large generally by that time, despite previous attempts to reduce it, that it was simply a case of killing a lot of the animals humanely or allowing them to starve to death. Despite that joint season and subsequent antlerless seasons which have been declared, there are still many more deer in some sections than their food supply will support.

Q. A great many of the sportsmen appreciate and know the obstacles confronted in the handling of the affairs and finances of the Pennsylvania State Game Commission. For those who do not know, will you please give a brief outline of the procedure which you as a Commission follow, in effecting your various activities.—G. A. Girty, Aspinwall.

A. This question contains an order so big it can't even be briefed very well. The Commission's Biennial Report contains a complete analysis of its activities and a copy can be secured by directing your request to the Harrisburg office. As to procedure, before engaging in any major program or new undertaking the Commission secures information from the bottom up. The field officers are asked to express opinions, so are the Field Division Supervisors, the members of the Staff at Harrisburg, and very often the State and Division officers of the Federation of Sportsmen's Clubs. In this way all angles pertinent to a project are brought

(Continued on page 27)



Officers and directors of the Allegheny County Sportsmen's League at a Wednesday evening sportsmen's broadcast.

Wildlife Conservation—
Its Past, Present and Future

Continued from Last Month; Conclusion.

By William Grimm

XI. Wildlife for the Future

Two things are absolutely essential if we are going to assure secure wildlife populations: (1) the provision of sufficient and suitable wildlife habitats, and (2) the reservation of adequate breeding stocks. We have already discussed the importance of the wildlife habitat. That is the first essential in any program of wildlife management. It is, of course, necessary to maintain adequate breeding reserves to inhabit this land. No amount of habitat, no matter how excellent it may be, no number of refuges, or areas set aside to benefit wildlife will be of value unless the birds and the mammals are there to use them. Marsh areas won't produce ducks if there are no ducks to inhabit them. Adequate numbers of ducks, or grouse, or quail, or muskrats, or any other species must be left, after the hunting or trapping season, to live and to reproduce their kind. Game laws are intended to regulate the take of the various kinds of wildlife so that these adequate breeding reserves may be assured but such laws do not always meet the local requirements. Local conditions may often warrant lower bag limits than those which are "allowed by law". It is largely up to the individual landowners and the local sportsmen to determine just how much can be harvested without doing harm to the breeding reserves in any particular locality. In no case should the harvest exceed the annual crop of a species.

As pointed out previously, there are numerous possibilities afforded us to improve wildlife conditions in our respective localities. Improvements which are made in the wildlife habitat seldom will result in benefits to wildlife alone but will result in many other benefits such as the control of soil erosion, the provision of water for crops and livestock, and the creation of additional recreation areas. Very often the landowner will be able to derive additional sources of income from these wildlife lands. In this respect we might mention such possibilities as the sale of props, poles, and Christmas trees from judicious thinning operations; the leasing of hunting or of trapping rights. As a rule, if lands are properly managed for wildlife they can be made to pay their own way. At the present time there are many, many acres which are a first class liability to their owners because they are not producing anything of any value whatsoever.

On almost any farm there are some idle acres which could be profitably developed for wildlife. Lands which are too poor, too wet, or too steep for cultivation are well adapted for just such a purpose. Lands which are badly eroding certainly need prompt attention and erosion can be controlled by the restoration of a more or less permanent cover of vegetation such as trees, shrubs, and grass. This, of course, will benefit wildlife through an increase in the amount of food and cover such plantings afford. Farmers should be encouraged to leave a little brush here and there, particularly along roadsides and fence rows. Banks of streams should be left with permanent woody cover, or planted with trees and shrubs, to aid in controlling the erosion. The planting of nut-bearing trees and of berry-producing shrubs is highly recommended. All of these practices will result in the improvement of the wildlife habitat with direct benefit to song and insectivorous birds as well as the game species.

Water areas are always an asset if they are properly managed. The creation of small ponds, often in connection with the control of soil erosion, is becoming commonplace. These ponds may serve a multitude of uses aside from being storage places for water; they afford watering places for domestic stock, as areas for fish production, provide desirable recreational sites, etc. There are many wet spots and small marsh areas which could be developed for wildlife. Even small areas, an acre or two in extent, if properly managed are worth while as they provide excellent habitat for such marsh-dwelling birds as the rails, gallinules, and certain species of ducks. Many marsh areas yield an annual fur crop that favorably compares with crop yields on equivalent acreages of cultivated lands. We no longer need to consider marsh areas as waste land. They have tremendous possibilities and can be made to more than pay their own way.

Wooded areas are likewise a valuable asset. Dense woods, particularly those of pure stands, are of relatively little wildlife value. Woodlands in which there are numerous openings are better from the wildlife standpoint. Where areas are being replanted with trees due consideration should be given to wildlife needs. Extensive areas planted to evergreens, such as pines and spruces, will in time have practically no value to wildlife. Mixed plantings of various hardwood species and conifers is much to be preferred. Where extensive plantings are to be made it would be well to leave small, scattered unplanted areas and to encourage the growth of berry- and nut-producing shrubs in such areas as an incentive to wildlife. Timber stands can often be improved for wildlife by selective cuttings or thinnings but species of trees which are valuable as wildlife food producers should not be eliminated. The culling out of all trees with natural cavities is to be discouraged. Den trees should always be spared.

Any serious attempt to manage lands and improve environmental conditions for wildlife is necessarily founded upon a sound knowledge of the underlying biological principles. There is still a great deal that is unknown regarding the various wildlife species and their ecology. This is true not only of some rare and seldom encountered species but also of many of the commoner game and fur-bearing mammals and game birds. The more knowledge we have of the

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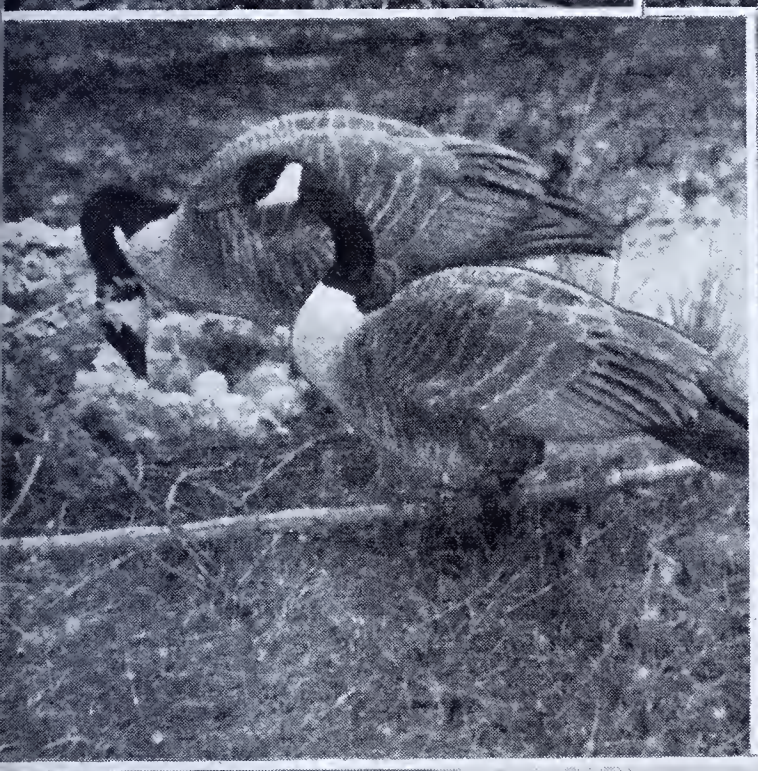


Photo by Mrs. Clarence Storm

George M. Gable of East Wehnwood, Altoona, has taken his limit of 'coons for some years. Here's his 1943 bag.













These splendid photos of the home-life of a pair of Canada Geese were taken at the Pymatuning Waterfowl Sanctuary by T. F. O'Hara, Chief of Construction, Board of Fish Commissioners, during April, 1942. They were courteously loaned to us for reproduction by both Mr. O'Hara and the Fish Commission.

What Happened to the Hun?

JAKE SNYDER, his last customer of the evening having departed, placed the contents of his antiquated cash register in a well-worn canvas bag, deposited the pouch in an old dilapidated safe in the back of his country cross-roads store, and shuffling around the counter pulled up a chair beside the pot-bellied stove. A few others, friends of many years standing, were there before him. They were always there, except when the elements interfered, which wasn't often, because nothing short of a cloudburst or a blizzard kept them from their rendezvous—a rendezvous which had its beginning a long time ago, and which became almost religious in attendance if not in topic. Subjects discussed included anything from crops and the war to huntin', fishin' and trappin'.

For some moments after Jake took his accustomed place amidst the gathering, no word was spoken. Then, as if by prearranged signal, one of the group, Lem Stickels, the oldest of the assembled natives, shifted his cud to the other side of his face and, leaning back until his chair teetered on the brink of uncertainty, much to the nervous discomfort of his comrades, volunteered "I've been thinkin' for a long time now what's ever come of them partridges (glancing at a mounted Hungarian Partridge on the shelf above the drygoods counter) which was stocked hereabouts some years back. Peers like they plumb disappeared into thin air."

"How come you wonder about them birds?" queried one of the other oldtimers.

"I just don't get it, that's all. Did they starve, did the varmints get 'em, or what? Two or three big stockings the Game Protector made in as many years, and a nicer bunch of birds I never seen. Why when they took off from the crates you'd have thought they was shot from a cannon. There was narry a sick bird among 'em and that's somethin' when you figure they was cooped up all the way across the ocean. I says to myself when I first seen 'em, bet them birds will be thick as sparrows round these parts in a few years. They'll make good shootin' and they'll be a good help to the farmers. But I reckon I was countin' my chicks before they was hatched."

"Since you're worryin' about 'em why ain't you asked the game department about 'em. They ought to be able to tell you all about 'em" proffered another listener.

"That I done, that I done. It peers they're in the dark same as me, only a heap more so. Peers, too, that they plumb disappeared from most all the other places they was stocked. The game department wrote me a long letter about 'em. I read it three, four times already. You'd be well nigh flabbergasted if you knew how many were put out in the last eighteen years. Want to know?"

"Uh-huh" grunted Jake, the others acquiescing as they shifted to more comfortable positions in anticipation of the story they knew was forthcoming.

"Well," began Lem, "over 28,000 of them birds was bought and turned loose beginning in 1925-26. Before that time a few individual fellers tried stocking 'em but they didn't do no good.

"That didn't worry the game department none though. They up and orders a whole kaboodle of 'em from over in Europe, mostly from Czecho-Slovakia, and turned 'em loose in places where they figured the weather and food and such was much like it was in their own country. They done this from '26 to '30, watchin' all the time to see what would happen. But nothin' much did, even though over 9,800 birds was put out in them four years.

"Of course the game department didn't just spend money and watch it take wings. Come late winter of '29-'30 they got all their men to take a count in all the places where the birds was stocked, checkin' everywhere with bird dogs and gettin' word from farmers who saw 'em."

"How many they count?" asked Jake.

"They made a right smart tally," vouchsafed Lem. "The letter said they counted around 3,500 birds which wasn't more'n 36% of the 9,800 what had been put out. Of course there was bound to be some what wasn't counted. Funny thing is they couldn't find nary a one in some of the counties where they stocked 'em. They let 'em go in 43 counties, got counts in 31, leavin' 12 counties with no tally at all. Another funny thing happened. In four of the counties stocked they counted more than they put out, the largest increase being around 90% more. In one county where one bird was stocked by mistake it was joined by two more, and there wasn't another bird let go nearer'n about thirty miles. That shows they can travel some if they have to.

"Why don't the darn things stay where they're put? Why did so dang many more show up in them four counties you was talkin' about?" interposed another listener.

"Don't ask me," Lem replied, partly riled. "Maybe it was the land; I don't know. Peers like the birds thrive better where the soil is rich and small grains is the big crop."

"What counties was they stocked in?" queried Jake.

"Here", answered Lem, taking a list from his pocket. "This'll show where the birds was stocked, how many of 'em, and when." "Did they put 'em out every year?" someone else asked.

"No," replied Lem. "After the first stockin' they didn't put any more out until '31, and then they kept on through '33. In them three years they stocked over 2,600. After the plantin's in '31 and '32, however, they made another count and found a little over 4,400 birds in 33 counties, 35% of what was stocked in the whole seven years—in other words



They were always there except when the elements interfered.

In an occassional cracker barrel discussion your editor is going to try to present simply the facts surrounding the Commission's experiences in attempting to introduce certain species of game and manage others.

4,400 out of 12,400. Once more they run into some funny things. In one county where nary a bird had been put out they found some, and four counties again showed more birds than was stocked in the first place, the largest increase being 170% more. The one bird I told you about sometime back, and the two what joined it, vamoosed into thin air in the meantime."

"They sure wasn't certain where they wanted to hang their hats, was they?" proffered Jake.

"Nope, not a bit" said Lem. "However, the game department kept checkin' and checkin' and found the birds was slowly pickin' up in the grain sections, so from '37 through '40 they bought and stocked the biggest bunch ever, almost 19,000, of which about 2,800 were raised at one of their game farms, beginnin' in '35.

"Why'd they stock so many more?" asked Jake.

"Well," replied Lem, "from what I gathers they figured more of 'em cut loose in each bunch would pay bigger dividends."

"Don't make sense," someone else interrupted. "If they got no returns on a few why expect to get any on a whole bunch?"

"Keep your shirt on and I'll explain," answered Lem. "Peers that the game men learned the birds were sort of persnickety in pickin' their mates so they figured that when they let 'em go in small bunches there wasn't enough choices to be had. I reckon they decided to give the birds a run for the money and let 'em go in big lots so they'd have a chance to match up quicker and get to the business of raisin' some families."

"Did the big bunches do better than the small ones?" asked another oldtimer.

"For a short spell they did, but in no time at all they started disappearin' again, sometimes turnin' up in the darndest places and then pullin' stakes again. The game department couldn't figure 'em out. They seemed to be makin' their last stand in the upper Susquehanna River Basin for some reason or another, and when game wardens made another bird-dog count along about September '38 and October '39 they found 'em in a good many places in that section but they was spotty and it was well nigh impossible to count 'em so they gave it up."

"Did they stock any more after '40?" queried another listener.

"Yep," replied Lem. "In '42 and '43 they put out over 5,400 more from the game farm, making a total of over 8,300 from that source, but '40 was the last year they bought any."

"Wasn't there any huntin' seasons in all that time?" asked Jake. "I don't mind of any round these parts."

"I was comin' to that" answered Lem. "Along about '39 the game department figured it would be a right smart trick to open up a couple of counties in the section I was just tellin' you about, so come Fall they allowed shootin' in Lycoming, Northumberland and Montour counties, from November 1 to 21."

"How many'd they get?" someone wanted to know.

"Accordin' to estimates, about 275. Nothin' to brag about, but like the game department said, the birds was strange to the gunners who wasn't accustomed to their quick rise and long flyin' and couldn't make the most of their shootin'. From what I've been told they're right smart birds, and after they're shot at the first time, gettin' near 'em even with a good dog is somethin' to holler about. Must be, or more would have been killed, peers to me."

"Seems as they would," agreed Jake.

"Well to make a long story short the game department had a couple more seasons. One in '40 in the same three counties, when they took only 100 birds; and two others, in '42 and '43, both in Cumberland and Franklin counties when they got 485 the first year and 250 the second. Since then the department called it quits. Leastways they're not going to buy nor raise any more of the birds. It looks like the end of the Hun partridge."

"How come no huntin' was allowed in any other counties?" another oldtimer asked.

"The game department don't say," replied Lem, "but I reckon they just picked the ones that showed signs of havin' the most birds to see how many the hunters could find."

"Seems to me," said Jake "that it would've been a dang good idea to open the whole state for one year. That way they'd of known more about where the birds was, and it would've helped the hunters to know 'em better. I mind some Huns bein' shot illegally round here because nobody knew what they was, and I reckon that happened other places too. Maybe in a year or so it would be smart to make another one of them counts. A lot of fellers could use their bird dogs in trainin' season and then report to the game department how many they found. Some might get counted twice, but if a feller gives the location, the farm and township, it wouldn't be so hard for the department to check 'em on a map. I recollect once, when they asked the farmers to tell 'em how many quail they knew about, the fellers around here reported more'n I figured there was in the whole bloomin' country.

"You know Lem, I don't blame you nohow for wonderin' about them birds. Since hearin' your story, blamed if I ain't wonderin' myself," said Jake. "I was listenin' pretty close to what you was sayin', and askin' a fair share of questions, and it strikes me right off that the birds was just downright deceivin'. Maybe they offered too much temptation for some of our varmints; maybe, too, where they come from they didn't have no winged or four-footed varmints, or leastways not too many around to bother 'em. And again maybe they was plumb homesick. Seems though with them bein' such alert critters and fast flyers that they'd soon learn to outwit anything that bothered 'em. I guess they just didn't belong. By the way Lem, did that letter you got say anything about how much all them birds cost since they first put 'em out?"

"Yep," replied Lem fishing the letter out of his pocket, "here it is. Says that all the wild-trapped birds brought over from Europe cost around $125,000 and the ones raised at the game farm about $3.00 apiece. Figurin' on the 8,300 that was raised on the farm that would be around $25,000 more—a dang tidy sum to spend on a furriner. Darn shame he didn't do like the ringneck and spread all over the country. But it just wasn't to be.

"However, I'm a thinkin' that every farmer, hunter and trapper ought to be interested enough in 'em to report any they see. Who knows but what some day, sometime, what's left might decide to make a go of it come

(Continued on page 30)



From '37 through '40 they bought and stocked the biggest bunch ever.

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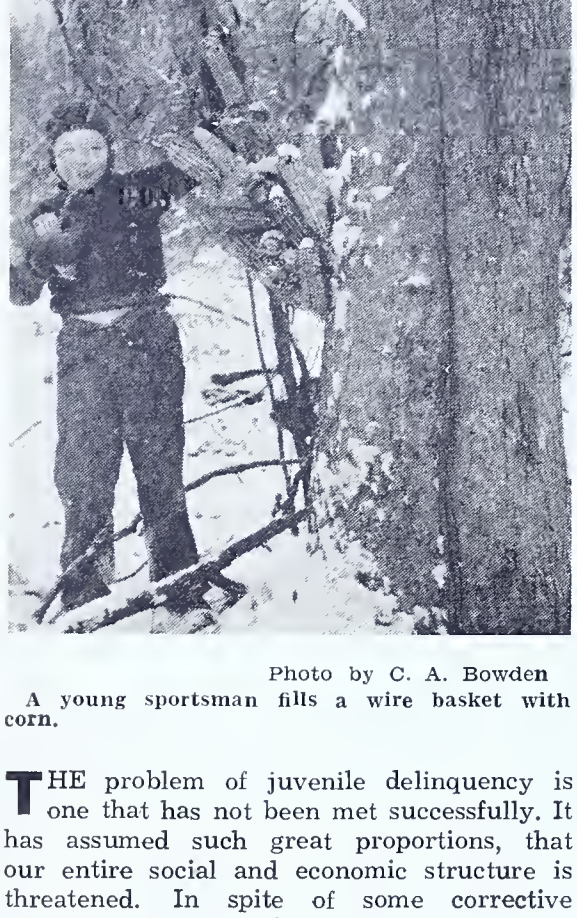


Photo by C. A. Bowden
A young sportsman fills a wire basket with corn.

Sportsmen *versus* Juvenile Delinquency

By Frank Jurczak

THE problem of juvenile delinquency is one that has not been met successfully. It has assumed such great proportions, that our entire social and economic structure is threatened. In spite of some corrective measures to prevent this social disease among our youth in general, it is increasing.

To fully understand this problem, many factors must be taken into consideration, such as the cause, and the corrective and preventive methods of dealing with it. The chief causes are parental neglect, poverty and lack of recreational facilities. Children who are neglected, quickly find their own companions and pleasures, some of which are not conducive to their welfare. Parents who come under this category are those who are too busy pursuing their own selfish pleasures to give a thought to the welfare of their offspring. They rely on curfew ordinances to keep their children off the streets, but such ordinances are of no value if the parents will not enforce them at home.

Where parents provide wholesome recreation and education, delinquency can't rear it's ugly head. Growing youth needs the guidance and advice of their parents and a clean outlet for surplus energies. Lack of recreational facilities contributes greatly to the delinquency among the teen age group of today. True, there are playgrounds and swimming pools, ball grounds and in some instances lakes for boating and fishing, but there are not enough, especially of the latter, in thickly populated industrial areas.

The present methods of trying to correct delinquency cannot and will not succeed. For example, a delinquent is taken into court and, if found guilty of an offense, is sentenced to a reformatory. What he or she didn't know about law-breaking when they were incarcerated, they quickly learned from other inmates. They emerge not as chastised persons, but as criminals in the making, determined to "beat the rap" the next time. Wouldn't it be better if the money used to prosecute such delinquents in the future was earmarked for projects that would aid in the *prevention* of this evil? This problem confronts each and every citizen of this nation; sportsmen and sportsmen's organizations included.

The organized sportsmen have dedicated themselves to conserve, improve and leave to posterity a heritage of the outdoors that will assure clean hunting and fishing. Fulfilling that obligation is not an easy task, however, for often many obstacles confront them, i.e., pollution of streams, predators, forest fires, etc. Furthermore, they too often overlook important factors. Public education, for instance, is one important factor which has been neglected by most sportsmen. There exists in the public mind a fallacious thought that boils down to this. Sportsmen's Clubs are selfish organizations interested only in their own ambitions and desires. The blame for this line of reasoning on the part of the general public rests with the clubs themselves. However, it is not too late to correct the public's impression. Here's one example.

Our club, the Ambridge District Sportsmen's Association, a branch of the Beaver County Sportsmen's League, is situated on the banks of the once beautiful Ohio River, twenty miles north of the city of Pittsburgh. Ours is an industrial town and the population numbers approximately 30,000. However, we lack recreational facilities such as lakes and streams for aquatic sports. Our association is faced with the same problem that confronts practically all clubs—depleted membership due to the war effort. Shortage of ammunition, seven day work week, gas rationing, etc., have also curtailed its activities. Until recently, they were at a standstill and something was needed to stimulate interest and keep the remaining membership together. This something developed in the form of a junior sportsman's group.

Junior sportsmen's organizations are not new to many senior clubs that are sponsoring them. They are the sportsmen's answer to juvenile delinquency. Ask any club which has fostered a junior group if it hasn't rendered a great service to itself and the community as a whole. Yours Truly volunteered to organize the Ambridge District Junior Sportsmen, and for the benefit of those who may be interested in organizing a junior branch the following information may be of value.

Through the kind interest of Dr. Joseph Benkert, Principal of the Ambridge High School, the author presented this program to the students. An announcement to the effect that a junior club was being organized was broadcast at an assembly of the entire student body. A public announcement also appeared in the local paper. An initial meeting was held and the officers and directors were appointed to serve the remainder of the year and the whole program was explained to the boys. Our association contributed $100 to the junior organization. All activities are planned and carried out under a constitution by which the boys govern their organization. Membership cards are printed and the entire business of the group is in its own hands.

A Board of Advisors composed of the following was appointed to keep in contact with the juniors: H. E. Woods, President of the Ambridge Sportsmen; H. N. Sikov, President of the Beaver County League; A. J. Brutout; P. J. Caul, Burgess of Ambridge, and the author. The duty of the Board is to advise the boys on the more perplexing problems.

(Continued on page 27)



Photo by C. Gordon Krieble
Junior clubs can be especially active in planting trees.

Comments on the 1943 Antlerless Deer Season

By Randolph Thompson

"HOW much better it is, to put a small deer to a quick and merciful ending with a bullet, and that in the fall of the year when it is in good condition and fit for food, rather than permit it to suffer a slow and miserable death from starvation and freezing a few months later, and then lie and rot somewhere in the woods, serving no good purpose."

The above quotation is, in a nutshell, the central point around which, during the years the Pennsylvania deer problem has necessitated antlerless deer seasons, most of my arguments, talks, and lectures upholding and justifying such open seasons have revolved. While many of the problems affecting the Game Commission's work and wildlife affairs in Pennsylvania are more or less seasonal, as for instance winter feeding, planting programs, the forest fire problem, stocking, etc., the deer problem is one which carries on throughout the entire year.

Deer in large numbers seen grazing on farm lands throughout the State, when they are naturally browsing animals belonging to the woodland fastnesses, is a spectacle which in itself gives evidence of an artificial condition to say the least. Thousands of emaciated specimens of deer of the previous seasons birth found dead or dying along streams and elsewhere in browsed out territory should be convincing proof of need for drastic action to effect the "cure." The "deer line," so evident in so many areas that it can easily be ascertained in the dark, should point to the absolute necessity of balancing the herd to the available food supply. And yet, in spite of all these, and many more let us say exhibits, as plain as one's nose on one's face, the fact remains that innumerable deer hunters refuse to be convinced that a deer problem exists. As a result, action taken by the Commission after much intelligent research and exhaustive studies is rendered null and void in part, and the end sought is not attained.

It seems to me that the state of mind gradually taking hold in the reasoning of many hunters caused them to overlook the fact that the wonderful food conditions, following the great, statewide lumbering operations a couple of generations ago, had a very great part in the rapid increase in the deer herd, and at the same time to give too much credit to the buck or horn law and the protection of the doe. While the female deer was through the habit of thought over a period of years being more firmly placed on a pedestal where it seemed to be more or less sacred, these same hunters neglected to note that saplings which recently were sprouts or seedlings had grown into poles and saw timber, and that succulent sprouts, tender terminal shoots, and nourishing buds could not exist in present day forest cover.

Observations made while on a trip during the recent antlerless deer season, which took me into parts of Lycoming County and into many sections of Tioga County served to bolster my previous conclusions that the Commission's "taking the bull by the horns" and acting without fear or favor is the only solution.

The allotment of deer to have been killed in Lycoming County, one thousand, through the sale of five thousand permits, was almost arrived at, the number bagged being, I believe, about nine hundred and fifty. Just what corrective effect this kill will have in a County where a land owner told me he counted sixty-seven deer on his nine acre oats field at one time, and where a Game Protector stated he helped dispose of ninety dead yearlings along one stream, I do not know. I do know however, that five thousand hunters spread over a County as large as Lycoming, and over a three day season, are barely discernible. Aside from occasional hunters standing in open spaces and fields, and near their cars on roads, seemingly waiting for the deer to come to them, I saw little activity in traveling over many miles in two "runs" through the County. The old fashioned drives seemed to be in the discard, and it was a waiting game with little chance of an observer seeing any action. Not a single deer did I see in the possession of hunters along some forty miles of roadways traversed in the hopes of getting some pictures. Food conditions along the roads mentioned were such that no respectable deer would be content to loiter there long enough to be shot. As later turned out to be the case in all parts of Tioga County visited, there certainly was no congestion of hunters in any one locality which would result in a dangerous condition in so far as accidents are concerned. I heard one Game Protector who was on patrol and engaged in checking cars in Lycoming County, state that in some twenty odd miles travel, in good hunting territory, on the last day of the season, he saw not a single hunter actively engaged in hunting. "No trespass signs" are very much in evidence along the main highways running North and South through the County. These are of course on large privately owned or leased holdings, and because of this condition no good weeding out of surplus deer can be accomplished.

Some rather striking conditions were encountered in Tioga County. No sooner had I crossed the County line near the town of Morris than I began to encounter successful hunters. In fact in Morris itself I noted twelve deer on the fenders of cars which were parked, three each on two cars, and while examining them other cars pulled into parking spaces where the hunters had engaged quarters, several of these cars carrying tangible results achieved nearby.

It did not take long to decide that this good hunting was a result of cuttings having been made in securing wood for distillation, this resulting in a good food supply nearby, holding the deer in limited areas, and making hunting easy and successful. One such active operation was carrying on within sight of the main highway. A side trip into the area at the head of Pine Creek, east of Woodhouse, showed several such cuttings, good hunting conditions, and organized groups of hunters carrying on in the orthodox manner and with success.

I had noted the advice given in Commission news releases, asking hunters to pay

(Continued on page 32)



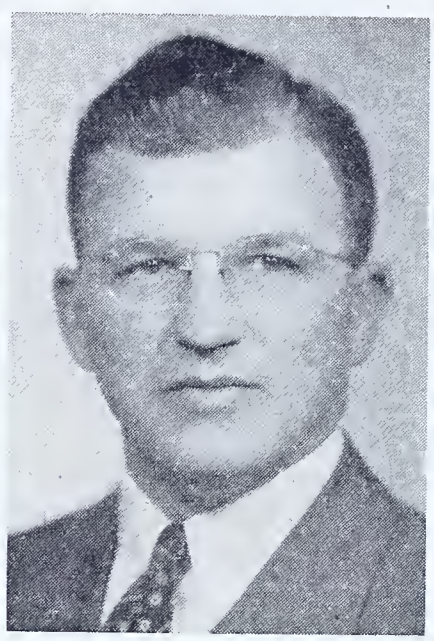
Reducing deer herds through antlerless seasons means more food for those remaining, a better balance of sexes, and consequently a sturdier, healthier stock.



Colin Reed, President



Oscar A. Becker
1st Vice-President



Odd McCleary
2nd Vice-President



Dr. C. A. Mortimer
Secretary-Treasurer

NOTES FROM THE FEDERATION

PREDATORY animal control and post-war programs pertaining to fish, game and forestry management constituted the highlights of the 13th Annual Meeting of the Pennsylvania Federation of Sportsmen's Clubs held at Harrisburg on February 11 and 12.

Without any doubt the most controversial report brought before the Federation was that presented by the Predator Control Committee consisting of Charles H. Nehf, Chairman, Ray Armstrong, Edward VanCleve and Lawrence L. Lehr. Various views on the subject were entertained from a heavy bounty on all sorts of so-called vermin to the complete elimination of bounties. The Committee obviously spent considerable time and made exhaustive research on its study. Its conclusions were based on the results of the state-wide survey of facts obtained from writers of many sportsmen's organizations, well known Pennsylvania outdoor sports writers, interested friends, and diligent perusal of considerable literature on the subject. The main items considered by the committee throughout its study were:

1. Fully recognizing the sporting qualities of the red fox and not desiring under any circumstances to deprive this group of their recreation which requires not only considerable skill, but a great outlay of capital invested in both dogs and horses.
2. Recognizing the loss of fur value of pelts taken during the off-trapping season, when the skins are not prime but until a workable plan is presented to eliminate this loss the Committee could suggest no other remedial measures than those presented in the following recommendations.
3. The Committee regretted that it did not have the report on the research study of the red fox in Southeastern Pennsylvania as conducted by the Game Commission, the Fish and Wildlife Service and the Pennsylvania State College which is not yet complete.

On the basis of its exhaustive study and consideration of the aforementioned items the Committee made the following recommendations:

1. A continuation of the present policy of no bounty on the Wild Cat.
2. A continuation of the present policy on the Great Horned Owl.
3. A continuation of the present policy of protecting all Hawks, except the Goshawk, Sharp-shinned and Cooper's Hawk or any other hawks seen in the act of killing.
4. The Committee also recognizes the predaceous qualities of the Raccoon and Mink, but present Game Code is adequate in its control program for both.
5. Immediate restoration of the $1.00 Bounty on the Weasel, instead of the ridiculous token offer of 50 cents.
6. The enacting of a State Law which would allow farmers and poultrymen reimbursements for poultry killed by foxes or weasels. This Law, similar to the present dog law act for livestock damage, would draw its funds for payment of said damages from the present dog license fees.
7. During the present crisis, the Pennsylvania Game Commission pay a bounty of $4.00 on both the Red and Gray Fox taken in any section of the Commonwealth. This is to be continued for an experimental period of one year. (Commission now pays $4.00 for gray foxes only.)

Seventy-two resolutions of one sort or another were acted upon by delegates to the conclave, only two of which were disapproved. For the convenience of our readers we are listing them hereinafter under the departments to which they pertain:

Fish Resolutions

1. Reaffirming its former resolution favoring a 50c increase in the fishing license.
2. Recommending an increase in the compensation for fish wardens, with a minimum of $150.00 per month to place them on an equal basis with game protectors.
3. Reaffirming its former resolution providing for the appointment of a separate fish warden for each county.
4. Empowering the Fish Commission to expend money for enforcing the Pure Streams Law and to stop pollution.
5. Urging the Commission to plant more fish food in the lakes and streams of the Commonwealth.
6. Recommending that steps be taken at once to recodify the Fish Code for presentation at the next regular session of the Legislature.
7. Recommending that the Fish Act of 1925, Sec. 72 be amended to read: "Section 50 (c) Pickerel, Perch and Bullheads, not more than five tip-ups when fishing only through holes in the ice. The tip-ups must bear the name and be under the immediate control of the person using them.
8. Recommending that all dams constructed by the Government and those under war restrictions, including Cannonsburg Dam on Little Chartiers Creek, be opened to the public for fishing as soon as possible without expense for these privileges.
9. That the Commission be requested to stock all restricted streams 90% with legal sized fish in future plantings.
10. That the Fish Commission and the Department of Forests and Waters be urged to pay more attention to the work of stream improvement.
11. That the Fish Commission assume control of all prosecutions for fish killing by pollution under the Fish Laws, and furnish such technical assistance and legal counsel as may be required to assist the prosecuting officers.
12. Rejecting a recommended trout season from April 15 to June 30, eliminating the month of July, and from September 1 to 30, and a reduction in the creel limit from 10 to 6 and an increase in the size from 6" to 7".

Game Resolutions

1. Recommending that the Game Commission hire paid trappers to control vermin. The resolution was amended to read "hire paid trapping instructors to teach boys of this Commonwealth how to set their traps."
2. That vermin trapping also be done by paid employees of the Commission.
3. That a bill or bills be prepared and introduced at the next regular session of Legislature amending the Game Code to require that:

(1) Each fox released for a chase be tagged with a numbered metal tag secured from the Game Commission. Each tag will furnish evidence as to the approximate date and place of release, which will in turn be recorded by the Commission. A fee of $25.00 is to be charged for each tag so issued. This fee is to be returned by the Commission if the fox is killed and if the tag is sent in by the person or persons to whom issued within one month of the date of its issuance. In case the fox is killed and the tag returned by anyone other than the person or persons who originally secured it, he or they shall be paid $5.00, exclusive of any state or other bounty, provided information as to the date and place of securing the tag is stated when it is submitted to the Commission.

(2) That a fox captured alive in a chase cannot be released again until it has been tagged again, even though tagged one or more

times before another $25.00 fee is to be paid for the new tag.

(3) That foxes and any other wild animals not classified as game or fur-bearing animals raised by an individual or individuals, or on so-called farms or held in captivity can only be so raised or held on a permit from the Commission. Animals so raised or held shall be marked with metal tags or tattoo marks to show such registration. The fee for male or female foxes is to be same as for the same relative sexes of dogs.

4. That a bounty of $4.00 be placed on both red and gray foxes taken in any section of the Commonwealth for an experimental period of one year.

5. Recommending the repeal of legislation which protects the gray fox in Delaware and Chester Counties.

6. Recommending that the Commission make application to the Federal Government for release of ammunition, traps and other items necessary for the control of predators.

7. That a $4.00 bounty be placed on the Great Horned Owl.

8. That protection be removed from all hawks from November 1 to April 1.

9. That the skunk be removed from the fur-bearing animal list and given no protection for a period of four years or two years if the code does not permit four years; or two two-year periods.

10. Recommending that the bounty on weasels be increased to $1.00 (now 50c).

11. That arrangements be made to provide free hunting licenses to residents of Pennsylvania in the armed forces for the duration of the war.

12. Urging the Game Commission to increase its enforcement of the Dog Law.

13. Recommending that the Commission receive listings from real estate boards and banks on valuable land for small game areas, which would be considered suitable to convert into good shooting areas. To be purchased in small blocks and not necessarily adjacent to other lands already owned by the Commission.

14. That the Commission urge Federal authorities to set up a two-week Woodcock season in 1944 beginning the last week in October and ending the first week of November, or the last two weeks of October and the first two weeks of November in the event a four-week season should be declared.

15. That a penalty of not less than one year in the workhouse be imposed for shooting a human being in mistake for game unless the guilty party voluntarily surrenders and agrees to pay indemnity plus costs.

16. That the Commission be requested to experiment on improvement and increase of the deer herd as a post-war project by the establishment of a Deer Improvement and Propagation Ranch.

17. That a feeding program be established for deer in depleted areas by carrying on cutting projects.

18. Recommending the purchase of some new breeding deer stock.

19. Recommending that rabbits be purchased from outside the state for restocking.

20. That the Commission purchase land in the area of the headwaters of Taylor Run. (Lawrence County).

21. That calcium bearing salt be provided for deer in non-limestone areas.

22. Urging the Commission to establish turkey refuges and propagation areas as a post-war project in those areas to which the birds have recently spread.

23. That the opossum be kept on the unprotected list.

24. That the opening day of the muskrat season be changed from the first day of December to the last Saturday of November.

25. That an open season on Snowshoe rabbits be declared for the month of January.

26. Opposing the use of snares in any manner.

27. Recommending that the Commission give further protection to beavers and their dams in sections of the state where such dams control the watershed in streams originating in the mountains, and that no beavers be taken on game lands until such time as they prove seriously detrimental to the lands or waters.

28. That trapping seasons in the future be based on a Northern and Southern Zone, and that within each zone all trapping seasons for mink, muskrats, and raccoons be the same.

29. That the Commission secure the cooperation of the Department of Forests and Waters in making more extensive cuttings of large timber so there will be more abundant growth of brush and briars.

30. That the Commission be requested to set up propagating areas of not less than 50 acres in each county for natural propagation of rabbits.

31. That the Commission continue its policy of trapping native rabbits, and under advisement of the local game protector to release the animals in adjoining counties if deemed advisable.

32. That the Commission secure the services of a good trapper as an instructor and make his services available to farmers and sportsmen.

33. Recommending that Cambria and Huntingdon counties be placed in the Northern Zone for the taking of raccoons.

34. That shotgun shells of all gauges and sizes be made available next season so that each hunter may have not less than 25 shells.

35. That the purchase of ammunition by the sportsmen for the 1944 season be clarified, and that the Game Commission investigate the matter and report to the Federation at the earliest possible date.

36. That the Game Commission be requested to acquire a 600 acre farm in Pine Grove Township, Schuylkill County from Edwin Wolfe and an 800 acre tract in Lehigh County from the Trexler Estate which adjoins that portion of land now held by the Commission.

37. Favoring legislation to eliminate paragraph (d) of Section 501 of the Game Code referring to petitions to abrogate special antlerless deer seasons.

38. Rejecting a recommendation to eliminate paragraph (c) from Section 501 which provides for the issuance of antlerless deer permits.

39. Recommending to the Game Commission that the money from the Special Antlerless Deer licenses be returned to the counties in which the season was declared for the purpose of providing food for the deer.

40. That the sportsmen in any county where a special open or closed season is proposed be consulted by the Game Commission before the season is declared.

41. Favoring the appointment of a committee of representatives of the counties having a potential doe surplus to discuss the situation and recommend methods of control.

42. Recommending the Game Commission do everything in its power to have the U. S. Fish and Wildlife Service establish a migratory wild fowl season in Pennsylvania and its boundary waters extending from October 1 to December 31, inclusive.

40. That the Federation support the existing Federal Regulations which prohibit the use of live duck and geese decoys.

Other Resolutions

1. Recommending that an effort be made by the Game Commission to have the Department of Forests and Waters set aside at least 1% of state forest land as feeding areas for game where shrub and sprout growth are stimulated by cutting and fertilization if necessary.

2. That each county organization be required to notify the Federation secretary and the secretary of that division when any changes in names and addresses of officers occur.

3. That a model Constitution be formulated by the Federation for guidance in setting up division or county organizations.

4. That the Federation publish the official name of each county organization together with the names and addresses of the President and Secretary of such organizations in the annual account of the proceedings of the Federation.

5. That proper legislation be enacted so that all ground stripped of coal be leveled down, and that ground which cannot be cultivated be planted to trees, thus creating new forest areas and eliminating silt washing into streams.

6. That the Governor be urged to instruct the appropriate agencies of the Commonwealth to formulate a curriculum of instruction for teaching conservation education in the public schools.

7. Endorsing the idea of highway fills for dams and recreation purposes as a post-war planning project.

8. Recommending a meeting of representatives of the Federation, the Department of Forests and Waters, Game Commission and the Post-War Planning Commission to develop plans for the improvement of the fertility of state-owned or controlled lands.

9. Favoring the enactment of legislation empowering the County Commissioners to use their funds for the construction and maintenance of dams for water protection and recreation.

10. Reaffirming its stand against pollution.

11. Favoring the immediate cessation of pollution of the Brandywine Creek, Chester County.

12. Recommending to the Governor the appointment of qualified biologists to the State Planning Commission.

13. Approving the Governor's action on the abatement of pollution in public waters and urging him to set in motion the recommendations of the Committee to enforce the pollution laws at the earliest possible moment.

14. Recommending that an act of assembly be sponsored making it unlawful for anyone to dredge sand and gravel from stream beds, lake beds and beds of boundary waters in such places or manner as to destroy the spawning beds for aquatic life, and that the Fish Commission be given authority to enforce said act.

15. That the Department of Forests and Waters relax the restrictions on the manner and method of cutting small timber, such as aspen, etc.

16. Recommending that the Department of Forests and Waters restore present state park recreation areas as state forest lands to provide more open hunting territory.

17. Recommending that local forest fire fighters services inaugurate a program for having all brush and field fires burned prior to April 1.

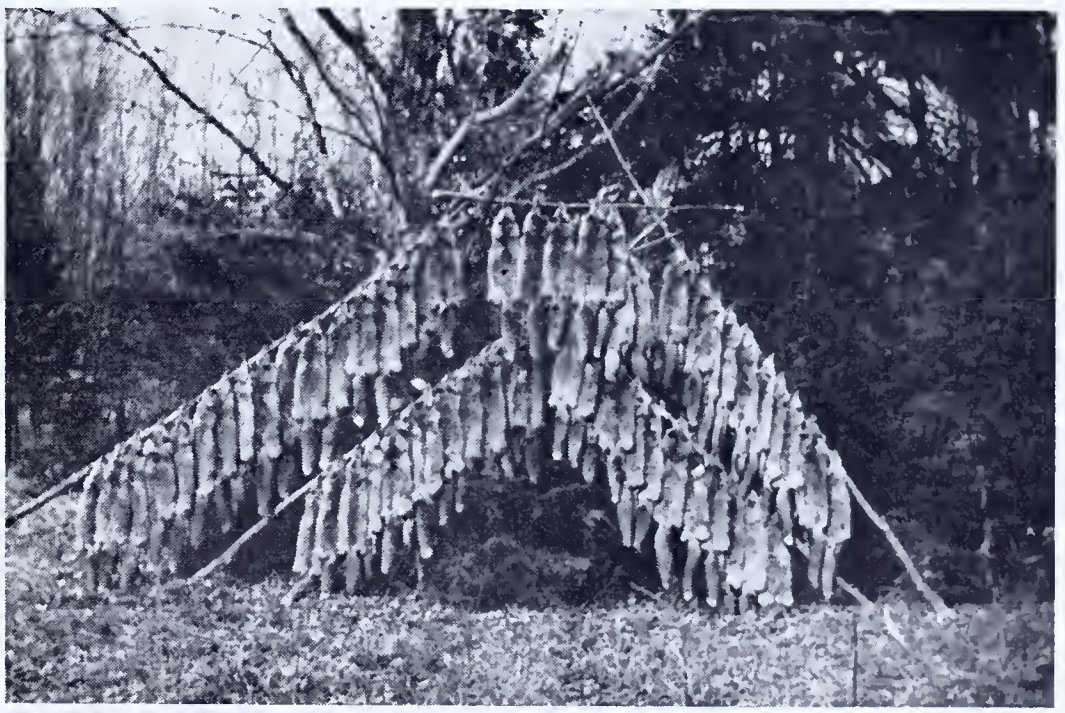
REMARKS

Several interesting reports from Game and Fish officials were presented to the Federation, the highlights of which are also hereinafter given:

GAME: Mr. Seth Gordon, Executive Director of the Game Commission, in a general discussion of the problems of that department proffered several interesting bits of information, to wit:

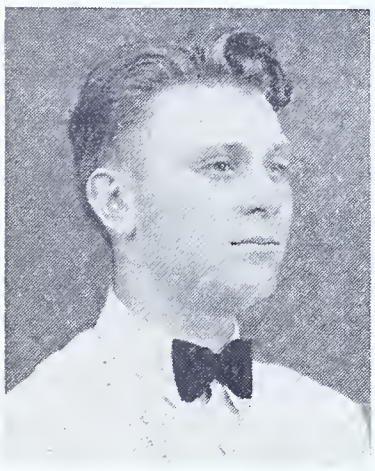
That at the present time the Commission has a total of 21% of its personnel in the armed forces, and that this figure will soon

(Continued on page 29)



With only about a dozen sets on his 480 acre farm, Nathan A. Shaffer, a dairy and poultryman, R. 5, Towanda, took the above 67 foxes, mostly red, from November to January. He has made large catches during other years also.

☆ ☆ WITH THOSE IN THE SERVICE ☆ ☆



Anthony J. Zaycosky



Temple A. Reynolds



W. L. R. Drake

The men shown at the left have all entered the armed forces within the past few months. We wish them luck: Anthony J. Zaycosky, District Game Protector, G-7 and 8; Temple A. Reynolds, District Game Protector D-8; and W. L. R. Drake, Publications Assistant, Division of Public Information.

Thanks very much for your nice card, which I received quite some time ago. Have been almost as busy as the proverbial hen, so hadn't much chance to pen you a letter earlier than now.

And thanks for your congratulations, but looks as though you'll have to do it again, for I made another jump within the past few days. I hung on a "rocker" to the three stripes I had. I got the three in October, and added the "rocker" a few days ago—which isn't bad going, in any man's language.

Speaking of language, have picked up considerable French since I'm here in French Guiana. It was a language I always wished to learn, and finally have the good opportunity here "in the raw."

Though there are considerable hardships connected with army life—mainly when in foreign service—such as being out of reach of home, family and friends, to mention one of the many—yet my army life has been beneficial indeed, in more ways than I could mention. It has, among many other things, given me a better appreciation of beautiful Pennsylvania, after having trod the soil of 5 different foreign countries—and "roasting" on the equator, almost—I'd much prefer to live back where you are.

This is the nicest of any of the places I've been in since leaving U. S., and also the most comfortable, climatically.

Ran across something interesting this evening. This is third-handed information, but was from a definite enough source so that I feel safe in passing it on to you—During the past several months, I'm told, a native somewhere in this colony, killed a wild duck that carried a leg band, same band having been attached in Canada. This information was given me by one of my Pennsylvania buddies, who, in turn, had it first hand from a U. S. civilian who saw the native with the duck. I'm trying to find out, if possible, what species of duck it was. Offhand, at the moment, and after due deliberation, I can't think of any of our ducks that normally migrate this far south. As the civilian has since left, I might not be able to find out what it was. I'd appreciate it if you would tell me if you've ever heard of a like incident before. I can't recall ever hearing of any of our ducks coming this far south. Course, after having been away from that type of work for about 2 years, one does get a bit "rusty." I've seen no ducks, other than domestic, so far.

About 2 months ago, several of us took a little river trip and on that trip I saw some ibis, for the first time in the wild. I was puzzled for a few seconds—but there's no mistaking on that one. As near as I could tell, they were scarlet. Some natives, later we found, had killed several of the flock. Most of them use old double barrel hammer guns—about 16 guage. I say about—some of the ancient weapons they use probably don't run true to form. One I examined was a 16 guage—and most of the others I've seen were of about the same bore. I'm told one of these "nimrods" has a new Browning Autoloader. I can't quite figure how that expensive weapon got in his hands. However, to see a poor man with a fine gun always did make me feel good—it does show good taste, if nothing more. Usually indicates also, a pride of possession, and enough of a sense of appreciation for the sport to put something into it.

Another interesting item: In a Trinidad paper—which is published by the army—I saw an account of the three bear hunters near Brockway, who'll probably remember to "make sure it's dead" next time. It looked like home to see that little item published just as it would have been in your local papers back there. My brother mentioned the incident sometime ago—and since then I read it in this somewhat local newspaper.

Sometime ago, I, with several others, made a trip to Devil's Island (Isle duDiable). It's quite beautiful to look upon—very. I'll never forget the return trip. We came back on a different vessel, and on that boat were several passengers, one of which was a rather attractive Spanish—I'll say female—and, during the course of the trip, one of my buddies decided he'd strike up a conservation with her. She spoke French so, this fellow, knowing considerable French, thought he could entice her into letting him take a photo of her. No go. So he continued his efforts at conversing with her—and finally, as the conversation terminated, he thought he would bid her fond adieu by saying "Au Revoir"—to which she replied in plainest English, with emphasis "Good By." I almost burst laughing, and often remind him of it since.

A gentle rain is falling now. Back there you folks would think it a heavy one. I recall, sometime ago, when it threw a short shower (less than an hour) and in that time rained 1½ inches!—S/Sgt. M. L. Shaffer.

"This is just another one of those so-called island X's. When you see one you see all, for they do not vary much. Dark skinned natives and some darker; lizards, rats, insects and what-have-you. Lots of parrots of all various colors and cocoanuts everywhere. Censorship regulations prohibit the mentioning of names of places, etc.; so it is just somewhere in the Pacific, where the sun is like a curse, and each day is followed by another slightly worse; where coral dust blows thicker than sand and a serviceman's dreams and wishes are of fairer lands.

"We were back to a rest and recuperation camp for a few weeks, and it all seemed like a dream to see civilization once again. The hospitality received there was such that words cannot describe it. There did not seem to be any shortage of anything. To see a butcher shop hanging full of meat was most amazing. We had the best of food ever since leaving good old U.S.A. Any and all kinds of meat, fowl, fresh fruits, and vegetables; all the milk one wanted, good butter, and last but not least real hen eggs. I began to think that the chickens were on strike for they were the first fresh eggs since leaving the States.

(Continued on next page)

DO US A FAVOR

Don't be satisfied with this magazine. Kick about it once in a while. Tell us we don't run enough of this kind of stuff or we run too much of that. If someone didn't kick every now and then we'd soon get in a rut and our readers would be the losers. So, the next time you have the opportunity sit down and let us know what you think about Game News and how we can improve it—and there is always room for improvement. How about it readers? You've all got good ideas.

"Our food in these places consists of canned. dehydrated or powdered, therefore that all was a real treat. It was a puzzle at first to adapt myself to their money but I soon did so. Things were reasonable enough there; as an example you could eat in a restaurant the following: T-bone steak (1½" thick), eggs, chips, salad, tea, milk or coffee, bread and butter, for 2 shillings and six pence, or approximately 40 cents in U. S. money. They could not make good coffee but that is only natural, as their drink is tea. All in all it sure proved OK, only the time was too short.

"In all I had 17 days leave and spent it traveling, hunting and fishing so I was in my glory. The rates were 3 shillings and 6 pence a day. I had one day of fresh-water trout fishing with fair success. Five in all—the largest being 4½ lbs. although there are many that range up to 12 lbs. To see them in the pools reminds you of the hatchery at Huntsdale. According to the Maori natives it was the poor time of the year for trout fishing. I also enjoyed several trips out with commercial salt water fishermen, and how the fish rolled in.

"Now for the hunting end of it, where I got the most pleasure. The rabbits were thicker than fleas on a dog. I only used a .22 rifle and with 8 shots I bagged six—so you may know. The pig hunting was the newest and most thrilling. It is all work but real sport. Covering about 25 to 30 miles a day makes a nice day—not saying much of the appetite. It is similar to our 'coon hunting in many ways. The dogs do the killing except for big boars—you must stick them. They range from 40 lbs. to 500. I have a pair of tusks from one we killed, if I can keep hold of them. It sure was new to me and I enjoyed it very much. The meat is far better eating than tame pork. There is deer, wild goat and ringneck hunting also, but time was far too short to get all of it in, although I did see some.

"Have been receiving the GAME NEWS and enjoy reading what is going on back in a real hunting country. Keep the good work up, as here is hoping for that day when once more we all can enjoy those sports which were enjoyed before.

"Give my regards to one and all as ever and always. Remaining as ever a Pennsylvania sportsman and proud to be able to boast of such. Until such time as we may meet again, I am a friend."

D. J. BLESSING, CM 2/c.
Deputy Game Protector.

D. J. Blessing, CM 2/c
Co. B., Platoon 3
58th Naval Const. Bat.
c/o Fleet Post Office
San Francisco, Calif.

Others recently to enter the service are Joseph Leiendecker, District Game Protector, A-2; Clifford L. Ruth, Game Protector, Land Management, Group D-7; and Clair W. Dinger, District Game Protector, F-2. Here's hoping we hear from all of them from time to time.

A letter from Harry W. DeFina, former game protector who has been stationed at the Naval Training Base, Casco Bay, Portland, Maine, says that at long last he has gotten his wish for sea duty and expects to proceed shortly to a base somewhere on the Atlantic and pick up his ship.

"It was certainly a pleasure to hear from you again. I realize how busy you are and really appreciate the fact that you always answer my letters.

I receive so many nice letters from different employes of the Game Commission. I had a very nice letter from my old bunk mate, Temp. Reynolds. As you know, he is also in the Service.

After coming back from furlough, I had to take my Platoon out on the field for two weeks. I had a great time. We had a hike every day and the Lt's. always asked me to lead the way. The only reason they asked me is because they get lost in the swamps.

We bivouaced near Pinehurst and bird life was most prominent. I saw cardinals, bluebirds, robins, chickadees, and a sparrow hawk. Naturally you haven't seen these birds up North, it is still too cold. I saw at least 60 deer, a gray fox, a beautiful wild turkey, several coveys of quail, but not a single rabbit. Their season on small game just closed on Saturday. Their seasons are most too long down here but there are very few hunters. There are plenty of violators.

Sgt. Roy W. Trexler, 33056004
F-11-4, F. A. R. C.
Fort Bragg, North Carolina

Italian POW's Will Recognize Skunk Next Time, Si, Si

Next time certain Italian Prisoners of War interned at Fort Benning spy a pretty little black and white animal strolling among the Georgia pines, they won't be in any hurry to pick it up. Because they'll certainly recognize the skunk—unknown in Italy.

The prisoners of war working along the railroad and highways in the Harmony Church area of the reservation as clean-up groups have been mixing work with sport by attempting to catch brush rabbits, squirrels, and rodents which they routed from their concealment in the thickets.

This past week, however, a species of animal until that time unknown to the Italians sallied forth from the brush in the form of a black beastie with two white stripes. This animal differed from others they had seen in Georgia because he was not as fleet of foot and was easily caught. But they did not hold him for long, because Mr. Skunk quickly went into action causing the two POW's to think they had got hold of an American booby trap. Now they are suspicious of every animal they see—particularly black and white ones.

From Ft. Benning "Bayonet"

The Bethlehem Game, Fish and Forestry Association recently made a nice gesture by sending in 32 subscriptions for members serving in the armed forces. The subscriptions are being mailed to them, with an honorary membership in the Association for the duration.

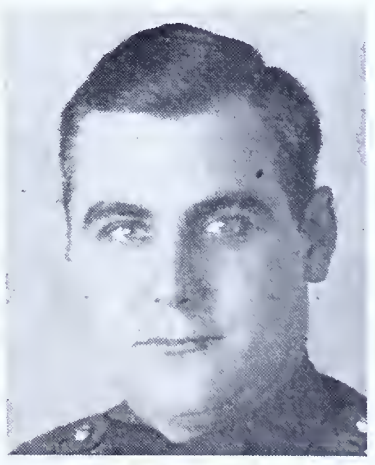
H. E. Brotzman, Secretary, believing the boys will be interested in knowing who the officers of the club are at present, asked us to include their names as follows: Graydon V. Snyder, President; Walter W. Fisher, Vice-President; and E. J. Riegel, Treasurer. Delegates to the Northampton County Federation are Snyder, Brotzman, and Charles Matz; alternates are Harold Reichard, Roy Ditterline, and Paul Stauffer.

"Just a word or two to let you know that I'm still around and kicking. Have been on the West Coast for a time and can't say that I agree with the Chamber of Commerce at all in more than one respect. Had hoped to get down to see you all before I got too far away, but didn't manage it. But did get in a few days of hunting small game before the season was over. Went out with Keppler one time and had some luck.

"My address has changed and it is c/o Fleet P. O., San Francisco, California instead of New York. You see I'm over here where the Japs are supposed to be and I guess I'll soon find out."—R. E. Flaugh.



Jos. Leiendecker



Clifford L. Ruth



Clair W. Dinger

★ ★ ★ CURRENT TOPICS ★ ★ ★



Jay C. Gilford
Field Division Supervisor, Division "B"

KNOW THEM BETTER

Having hunted and fished from the time he was a lad in school Mr. Gilford has more than demonstrated his interest in conservation, not only as far as his work goes, but in the field of sports. A onetime excellent baseball player, he is an ardent dog lover and exponent of field trials, bench shower, etc., and has helped to judge many of them.

He began his service with the Commission as Deputy Game Protector in 1923, was appointed an Assistant Travelling Game Protector in 1928, and a Division Game Supervisor in 1932, a position he has filled with initiative and ability ever since. A little on the quiet side, Mr. Gilford, has nonetheless a dry and pleasant sense of humor that is contagious.

Previous to entering the employ of the Commission he worked for two lumber companies and was in the production end of the oil and gas business for himself.

Pintail Banded in Utah Found in South Pacific

One of the longest and most puzzling duck migrations on record has been announced by the U. S. Fish and Wildlife Service, based on information received from Ensign Arthur R. Murphy of the U. S. Navy, who notified the Service of the arrival of a flock of pintail ducks at Palmyra, a tiny spot in the Pacific, 1100 miles south of Honolulu.

The birds were so exhausted they could be caught by hand. One of them wore a tag, the number of which revealed that the duck wearing it had been banded 82 days previously at the Bear River Migratory Bird Sanctuary in northeast Utah, 3,600 miles away.

The Service reports that the pintail rarely flies far over water, and that it has never heard of a pintail so far south as Palmyra.

HUNTERS VACATION WORRIES OVER

The Game Commission at its March meeting answered one of the big worries confronting busy war workers who desire to ask now for their vacations, by tentatively agreeing upon opening dates for the small game season November 1 to November 30, and the deer season from December 1 to December 15, both as stated in the law; and the bear season from November 27 to November 30 by resolution.

The dates for the bear season, leading as they do right up to those of the deer season, were purposely placed at the end of November so that hunters can plan, if they are so minded, to make one trip to the big woods serve both purposes, thereby conserving essential gas and rubber.

An 80-day waterfowl season also was tentatively agreed upon subject to Federal approval, to begin October 1 and close December 20, with the recommendation that the two northern or "flight shooting" zones previously in effect be consolidated. Such a season will provide ten days additional shooting over the previous year and give duck hunters in all parts of the state a reasonably good chance for at least a few days of good shooting.

The woodcock season was tentatively agreed upon to start October 7 and close on the 31st, which should appeal to all ardent pursuers of the 'timberdoodle,' provided the Federal authorities concur in the recommendation.

Simultaneous with its action on liberal shooting seasons, the Commission also agreed to operate its various game farms at maximum capacity consistent with the supplies of food, equipment and labor available, and to release all game birds prior to October 10, with the understanding that they must be from 10 to 12 weeks of age. A reasonable number of cock birds also will be held for distribution after the close of the season in areas which need them badly. This will give everybody an opportunity to observe the results of early fall releases.

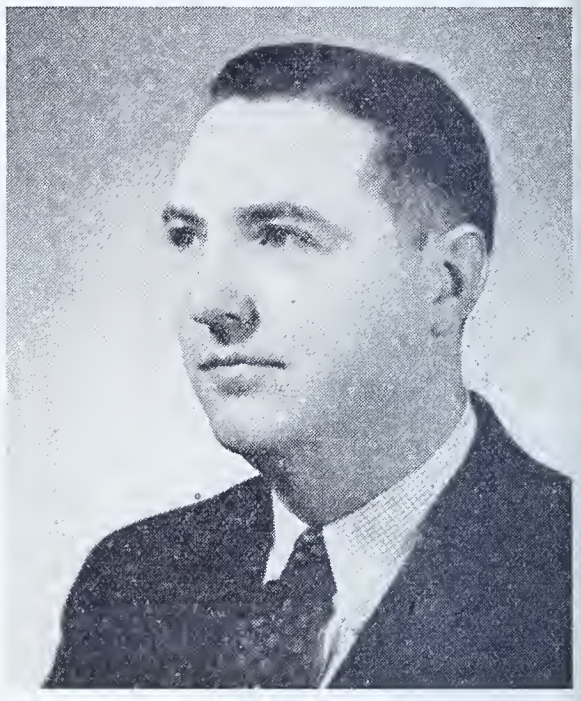
The Commission also authorized the purchase from private breeders at prices within the range it feels justified in paying, such quantities of ringneck pheasants and quail which can be secured. It pointed out, however, that this source of supply may necessarily be limited because private breeders are encountering the same problems in food, equipment and labor that confronts the Commission.

Action was also taken to further expand the rabbit trapping and transfer program, the Commission approving orders for 10,000 additional traps and such carrying cases, nets, etc., as may be needed to carry out this activity efficiently next winter.

Instructions have been issued to all field personnel to immediately take careful stock of all game conditions locally, and to report their findings by early April so they can be studied by the Commission prior to its meeting in early May, at which time it will finally decide upon all seasons and bag limits.

The 9th North American Wildlife Conference

Will be held in the LaSalle Hotel, Chicago, Illinois, April 24, 25, 26, 1944. Discussions by National leaders in the field of conservation will be held on the following topics: Administration of public lands; Plans and programs for the future; Private, state, federal cooperation; Upland game; Big game; Commercial fisheries; Waterfowl; Sport fisheries.



M. J. Golden
Field Division Supervisor, Division "A"

KNOW THEM BETTER

Another ardent outdoors man from the time he learned to shoot, his chief hobby by the way, Supervisor Golden had had the conservation program at heart ever since he became a Deputy Game Protector in 1929.

In 1935 he was appointed Assistant District Game Protector of Lackawanna County. Later he was transferred to Berks County and in 1937 promoted to District Game Protector of that County. He served as such until 1939 when his Supervisor, Frank A. Myers, deceased, became very ill. He was appointed Acting Supervisor at that time, and later, following Mr. Myers' death, to Supervisor in 1940.

"Mert" as he is usually referred to by his many friends was engaged in the contracting and building business before he joined the Commission's Staff.

He has competed in many regional and national shooting matches and is at present senior range officer of the Fraternal Order of Police Gun Clubs.

FOOD FOR THOUGHT

The noticeable increase in predators of all kinds, particularly foxes, is not only resulting in numerous local campaigns to control them—it is bringing much closer together the several groups whose interests are suffering as a result. For example, sportsmen's organizations and individuals who have been helping reduce the predator population in Lancaster County to improve conditions for wildlife, have been recipients of considerable commendation from the Lancaster County Poultry Federation.

In a statement made recently, Roy B. Herr, President of that association and the State Poultry Federation, intimated that in many cases farmers, upon whose livestock and poultry depredations are being committed, may be partly, if not wholly at fault themselves, by posting their lands against hunting and trapping. He inferred, speaking from the landowners angle, that "when we post land we may have been only collecting game in our own localities and in this way collecting predators which always follow game. A hunter may infrequently kill a chicken or a dishonest hunter steal a turkey, but if he kills any predators he is certainly helping us. One fox killed by a hunter would no doubt make up for the damage done by a great many hunters, most of whom are all right and honest."

Mr. Herr has expressed good logic, and in so doing opened up another avenue for serious consideration advanced by H. B. Hostetter, also of Lancaster, who feels that both sportsmen and farm groups have missed a golden opportunity by not inviting each other to sit in their local gatherings. In that way their problems could be openly discussed and well formulated plans laid to cope with them, whether it be the cooperation of sportsmen by helping to harvest crops, control predators, etc., or whether it be the cooperation of landowners by helping to improve wildlife conditions on their farms and permit public hunting.

If any of our readers have any suggestions for establishing better relations between sportsmen and landowners we will be very happy to entertain them.



Arthur W. Rossiter



A. F. Schelling of Philadelphia, who recently subscribed to Game News for ten years because "Game News is my favorite literature." Mr. Schelling is a Swiss hunter and comes to this country regularly for business and out door life. We are proud indeed to welcome him as one of our ardent supporters.

LEAVES SERVICE

Arthur W. Rossiter, Land Acquisition Assistant in the Division of Lands, severed his official connection with the Game Commission March 1, to return to the real estate business in his home town of Phoenixville.

Mr. Rossiter assumed his duties as Land Acquisition Assistant July 1, 1936, about the time the Cooperative Farm-Game Program was inaugurated. During his 7 years and 7 months service with the Commission he devoted a large proportion of his time in organizing this program, now comprising 1907 farms, aggregating 153,000 acres in 27 counties where it is operative.

He personally contacted many hundreds of farm owners and tenants, explained the plan to them, and in hundreds of cases secured their signatures to agreements by which they became cooperators. Because of his knowledge of farming practices, his ability to "speak the language" of the farmer, and his resourcefulness in many ways, he deserves much of the credit for building up this practical and effective program.

Mr. Rossiter also devoted considerable time and conscientious effort in the Land Purchase Program. Where a certain tract of land was needed to fill in present holdings, or when a new and difficult purchase project was in the making, he was frequently assigned the task of securing options. Having plenty of initiative and a sound knowledge of real estate transactions, he usually succeeded in accomplishing the objective.

His valuable services to the Commission in behalf of the sportsmen will be greatly missed, and his fellow employees wish him success in his plans for the future.

Hugh J. Friel, Advanced Title Clerk in the Title Section of the Division of Lands resigned January 31 to take up tax and title work in Philadelphia and vicinity. He faithfully and efficiently served the Commission since December 1, 1934, having previously been employed in a similar capacity by other State Departments.

During his service with the Commission he recorded title information secured by examiners at the respective courthouses for a great many tracts of land under contract for purchases, and helped coordinate such information in chronological form from the time the Commission approved a purchase to its completion.

His loss to the Commission will be felt in many ways and he leaves the service with the very best wishes of his fellow employees for his future success.

NEW CLUB FORMED

Congratulations and more power to the newly formed Fulton County Sportsmen's Club which was organized recently at the Old Valance School House in Licking Creek Township. Around thirty members were represented at the initial gathering, which went into action immediately after it was formed by sponsoring a fox hunt as its first sporting event. The officers of the new club comprise, Paul Knepper, local dairyman, President; Jack Davensizer, Vice-President; Orland Bard, Secretary; Sam R. Hess, Treasurer.

O. M. Pinkerton, District Game Protector, Indiana County, voluntarily resigned from service on January 31, 1944, and we wish him all the luck in the world in whatever new undertakings he engages.

"Pink," as he was often referred to by his many friends and colleagues, was an outstanding field officer—efficient, trustworthy, tireless, sympathetic.

He began his service with the Commission in October 1935 as a traveling Game Protector and was made a District Game Protector in 1938—a position he held until he severed his connections in January.



O. M. Pinkerton

The Humanitarian Spirit



Photo by D. L. Batcheler.
Stray, uncared for dogs.

Not very long ago a group of dog lovers in Pittsburgh appealed to the citizens of that community over the radio for information on stray, uncared-for dogs which had become so prevalent in that section. They wanted to find homes for the animals or see that they were disposed of humanely. Why? The answer is very simple and has a more far-reaching objective than you realize. For instance, there are more stray dogs roaming the streets since Pearl Harbor than ever before.

When war was declared and the boys began leaving for the Service, many of them were faced with the problem of finding suitable homes for their dogs before they said their goodbyes. Some sentimentally, though reluctantly, solved that problem by having their four-footed pals "put away" because they felt they would be much better off that way than entrusted to a buddy or a neighbor, despite the fact that such buddy or neighbor conscientiously and willingly volunteered to temporarily "adopt" the animals.

Those boys used good judgment, because it so happens that some of the very half-starved, disease infested creatures running at large now are those which were entrusted to somebody who fell down on the job. Not that they did so deliberately. They, too, were probably the victims of the same circumstances which made the original owners rely on someone else. They, too, were called to defend the colors or to work in war industries on shifts which prevented them from either finding other homes for their canine charges or from giving them the right kind of care.

That is one of the reasons why a group of Pittsburghers decided to do something about the stray dog problem. There are others. The dog that runs at large has no place in any community. Don't forget for a minute that once abandoned, a dog, just like a cat, will resort to its primitive instincts. It is going to raid livestock, prey upon wildlife, forage in Victory gardens and very often attack people. It is also going to spread rabies among healthy animals with which it comes in contact.

The damage to wildlife by stray dogs is incalculable because there is no way to figure it; however it must be enormous. That to domestic stock, poultry and sheep particularly, is also enormous. The State Bureau of Animal Industry reports that from $30,000 to $40,000 worth of damage to livestock and poultry is committed by dogs every year, that during 1943 constables and police officers accounted for 23,896 of these killer animals, and that their own agents disposed of several thousand more.

So, with all these facts before us, it behooves us individually and collectively to take a leaf from that to-be-highly-commended Pittsburgh group of dog lovers and do the same thing in our own communities.

Notes from the Field . . .

"While looking at fox traps in Refuge 264, I heard a fox barking near where I had a trap located. Thinking this fox was fast in the trap I hurried to the place and discovered the trap had not been disturbed. Looking upward on the nearby hill I saw the animal apparently much interested in the proceedings. After shooting at it several times with a pistol I then proceeded to track it in the fresh snow. I found that it had been within ten feet of the trap and had been disturbed by my approach. I have been wondering if the creature was barking for a good reason or if it was laughing. I haven't taken anything in the trap."—Game Protector Jack DeLong, G-1.

"Mr. Frank Stoyka Class 'B' trapper for the Commission caught in box traps one night on Propagation Area G-2 near Clover, three rabbits, four red squirrels and one weasel. Three of the red squirrels and the weasel were dead. The rabbits were nice and lively which would apparently indicate they can stand the cold weather better than the squirrels or weasel. A few nights later he caught a nice large mink in the same trap in which he caught the weasel."—Game Protector Bruce W. Cathermann, G-5.

"On January 17, I commenced trapping for predators on State Game Lands No. 51 and Refuge 51A. On January 26, I caught one red fox at Refuge 51 and on January 31, two red foxes near Refuge 51B. I examined the contents of the stomachs of two of the foxes and found traces of rabbit and a few small pieces of wood in one. The other contained parts of two toes of a bird which I am reasonably sure was a grouse, a small piece of wood, and a small piece of gravel." —Game Protector H. D. Carroll, Group G-4.

"On January 16 Deputy Protector Sheridan P. Closson, Edward S. Wilt and I took sixteen Boy Scouts from the St. Patrick's Parish of Gallitzen on a feeding expedition in the Siberton and Loretto sections. Quite a lot of game was seen and the boys had a good time."

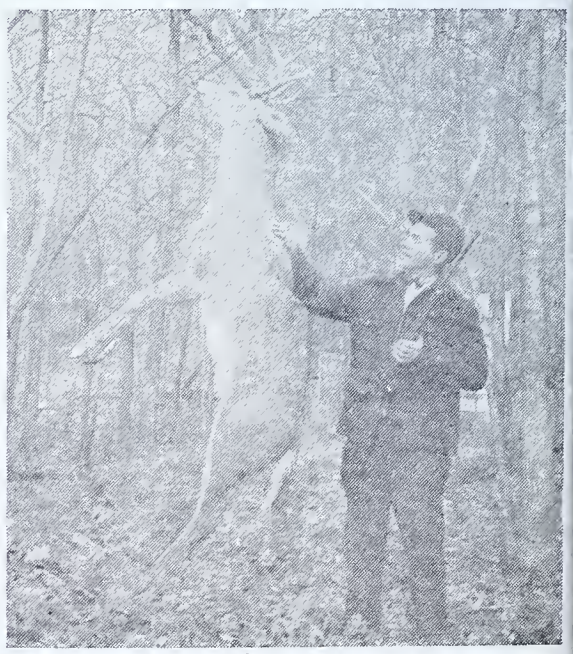
"The Marsteller Sportsmen's Association is charging a membership fee of $1.00 this year. Each member is given a free subscription to the PENNSYLVANIA GAME NEWS or the *Pennsylvania Angler*."—Game Protector, Bruce W. Catherman, G-5.

Arizona had an opportunity to hunt Javalina, or wild pigs, this year from February 22 to March 22. One adult animal of either sex is the limit and may be taken only with a rifle propelling bullets weighing 87 grains or more.

"Two unusual incidents were observed on January 31, 1944. A woodchuck had been killed by an automobile along the Lincoln Highway near Greensburg—another apparently killed by dogs near Blairsville the same date."—(Rather early for woodchucks) —Field Division Supervisor, Rollin Heffelfinger, Division "G".

"On the last day of January 1944, a Bald Eagle was observed flying along the Cliffs fronting the Delaware River in Westfall Township. Usually we do not see the eagles in this section until April."—Game Protector John H. Lohmann, Division "B".

"On January 11, 1944, I was following a wildcat on a good tracking snow. After traveling several miles, and just as it approached a dense thicket of small hemlocks, it suddenly made two tremendous leaps and landed on the back of a deer. The deer made three jumps down the hill and then suddenly turned and dove into the most dense part of the thicket, scraping the cat off. The deer escaped and the cat went on its way as though nothing had happened. The next day J. R. Matson of Perry, N. Y., while in the same section, found another deer that had been killed and partly eaten by a wildcat. The tracks showed plainly how the deer had been attacked and killed." —Game Protector L. H. Wood, District C-1.



A fine 10-pointer bagged by Emil Klancher of Irwin near his camp in Clinton County, season of 1943.

"While patrolling along the Allegheny River near Parker, I noticed fox tracks along the ice and found a few duck feathers. I set two traps up on the hill near the river and caught three grey foxes, one female and two males, making a total of 6 foxes trapped in that area to date."—Game Protector Levi Whippo, District F13-14.

"There are still plenty of deer left, especially in the farming sections. Foxes, raccoons, opossums, and skunks are also numerous. There are more foxes and opossums than I have ever seen before. So far I have killed three reds and one gray. The opossums almost always beat the foxes to the traps."—Game Protector E. J. Turner, Group A-2.

"The eight inch snow that blanketed this section for more than two weeks caused a lot of fatalities among our deer herds. It was not a case of starvation but one of equal importance to all concerned. With the heavy crust on the snow *dogs,* running alone and in packs, would exhaust the deer in short order and the kill would follow. I found four deer killed in this manner, and several dogs died for their misdeeds."—Game Protector Paul L. Failor, Group B-2.

"The deer are moving down off the mountains to the lower lands where there is no snow. Saw a white doe the other day."—Game Protector Wm. G. Matthews, Groups G-2 and G-3.

"I would like to put in a kick about the skunk, the old thief. On two different mornings I caught a rabbit in a box trap and the perfume kitty went in and ate the rabbit."—Game Protector D. H. Franklin, Group D-9.

"On January 17, my neighbor Rodney Swartz and I were tracking foxes in the vicinity of Game Lands No. 504A when we saw a red-tailed hawk fly across the road with something in its talons. We shot at it but it was too far away. However, the hawk dropped its prey which proved to be a freshly killed full grown gray squirrel."—Game Protector Harold E. Russell, Group D-4.

"Foxes are very plentiful throughout this section this year. Of two local trappers one caught 25 and the other 17 in one township. Twenty-one were grays and 21 were reds, and that seems to be about the proportion in which they run.

"While patrolling Game Lands No. 95, I noticed that quail and grouse seem to have a special liking for fields of sweet clover and feed in them regularly at the same time, *i.e.* from daylight to around 10:00 A.M. I don't know whether it is the seed of the clover or seeds of weeds mixed with the clover, but they sure attract them in the month of January.



SPRING BRUSH BURNING DISCOURAGED

Farmers are encouraged to do their brush burning prior to April 1. The danger of fire spreading during April and May, the worst fire months of the year, is very great, and in the southwestern part of the State, for example, the County Civilian Defense office, upon the request of the County Chief of the Forest Fighters Service agreed to require permits for extensive brush and and grass burning after the first of April. Night fires are also frowned upon because of potential blackouts.

Aside from the safety angle, controlled limited burning in the early part of Spring does not have nearly the disastrous effect on wildlife that it does later in the season. Fires which get out of control, especially those near woodland areas, very often become tremendous conflagrations, burn over thousands of acres of good timberland, and destroy many wild creatures and their homes. Sometimes, too, they destroy the farm buildings of the landowner who started them.

A lot of burning is wholly unnecessary and wasteful, and that very often spring house cleaning could be served just as well by raking up debris and filling gullies with it. Such a practice will help stop erosion to a certain degree and at the same time furnish places of refuge for game. Sufficient cover should also be left along fence rows where pheasants, quail, rabbits and other wild creatures usually build their nests. More than one clutch of game bird eggs has been destroyed by burning along fencerows, and ground or low-nesting songbirds also lose out.

"We have had a fairly open winter so far and the game is wintering in good shape. I was fortunate enough to outguess one old red fox and four weasels this month, but was handicapped by lack of tracking snow most of the time. We have it now and I have already located four more weasels."—Game Protector R. P. Schmid, Group F-7.

"During January, I saw several flickers on Game Lands No. 85, and a Mrs. King who lives adjacent to No. 146 reported that she saw an oriole and several robins. In many sections of the county there are abundant signs of rabbits indicating that there is ample stock left for seed. I picked up quite a few rabbits that were killed on highways this month and found them all fat and in good condition."—Game Protector Elmer D. Simpson, Group F-2.

"A few days ago I saw four grouse budding in an apple tree near the headquarters on Game Lands No. 29. They seemed very uneasy and I figured something was scaring them. Finally I located a barred owl sitting on a dead tree about twenty yards from the birds. The old boy was waiting a good chance to grab off a lunch. Last week I caught a weasel in one of my fox traps but something had eaten half of it. It must have been an owl because the animal was cut into and the head and shoulders were missing."—Game Protector George H. Burdick, Group F-4.

Proof that foxes destroy many grouse and rabbits was presented recently by J. P. Steis of Ridgway who has spent considerable time in the woods with his dogs the past winter. Several times he observed where foxes caught grouse and also where hawks had killed them. He also noticed where a weasel caught several rabbits. Mr. Steis is much in favor of establishing a prescribed bounty for all foxes until their numbers are satisfactorily brought under control.

On Sunday, February 6, 83 hunters from Pittsburgh, McKeesport, Glassport, Washington, Fredericktown, Burgettstown, Wolfdale, Bentleyville, Ellsworth, Scenery Hill, Vanceville, Marianna and Eight-four turned out for a mammoth fox hunt sponsored by the Pigeon Creek Sportsmen's Association of Cokeburg. Even four members of the fairer sex participated; although not as successful as it might have been, as only one fox was shot, nonetheless everyone had a tremendously good time outdoors, climaxed by a hunt luncheon served in the Moose Home in Cokeburg.

The Land Purchase Program

(Continued from page 3)

State Forests also exist. Our Commission now owns land of some character or other in all but four counties, and we have recently contracted for the purchase of a still additional large tract of land which will soon become the property of the Commonwealth.

When the refuge system, and later the purchase program, was launched the protection and increase of forest game, especially deer, was uppermost in the minds of those in charge of wildlife administration. Later, in order to spread the benefits of the refuge plan more widely numerous small units were created. That was followed by a proposal to create 200 Auxiliary Refuges on leased lands, primarily to provide hunting grounds and refuges in thickly-populated regions where large purchases could not be made.

When it became apparent that more funds would be needed to expand the Commission's lands program, the Legislature in 1927, at the behest of the sportsmen, added 75c to the cost of each resident hunting license, with a proviso that the increase could be used only for the purchase of lands, the establishment of refuges, and the maintenance and development of such property as would provide protection for wildlife and assure public hunting grounds. The Commission then owned only 86,000 acres of State Game Lands, but with the increased license fee, the purchase of game lands moved forward rapidly.

In order to devise a solution to the problem of furnishing better small game hunting near large centers of population, and to bring about improved relationships between our farmers and the increasing numbers of hunters, the Commission in 1936 instituted its present Cooperative Farm-Game Program. This has grown consistently without high-pressure sales effort. Today there are 73 such projects with a total of 153,600 acres under the Commission's control for wildlife purposes. In my judgment, the surface barely has been scratched in this cooperative undertaking, but the success to date indicates quite clearly that in agricultural regions we can give the hunters, and the farmers, far more value per dollar expended through this program than we possibly could by purchasing large blocks of high-priced lands for game purposes.

The Commission has now acquired title to and has under contract over 800,000 acres of land. We have under lease for various purposes 350,000 acres more. In the near future, our land managerial responsibility for wildlife purposes will aggregate a million and a quarter acres—two and a half times what we had a decade ago. On this large acreage we are maintaining over 1200 refuge units, aggregating 165,000 acres. All of the balance, except safety zones around buildings on the cooperative projects, is open to public hunting.

Our early game land management practices consisted mainly of maintaining refuge and boundary lines, controlling predation, winter feeding, fire prevention, and law enforcement. As time passed, maintenance problems increased, and experimental development features were added. The latter reached their peak during the past ten years, especially in the period when relief labor was available.

To manage these vast land holdings and obtain the greatest public benefit per dollar expended presents one of the biggest problems confronting the Game Commission today. We all agree that any land management program to be sound must be planned so that the results will benefit future generations as well as the hunters of today. This presents the first major problem in which we seek your counsel and advice. Should our game land management program be based on (1) its economic value to the people of the State as a whole, (2) its value to those chiefly interested in wildlife, (3) or for both. If the latter, what proportion should be given to the hunter and what proportion to the general public? Before you answer this general question, you should be cognizant of a number of questions for which the commission likewise needs specific answers. For example:

1. What can we do economically to increase the fertility of the soil on game lands: (a) by use of fertilizer, (b) by planting legumes?
2. Which of the following methods will produce the most game food and cover over a period of time, and at the same time not impoverish the soil or cause erosion? To what extent should it be carried on?
   (a) clear cutting (b) selective cutting.
3. Once lands have been improved for game, how long will they continue to be good land without further development?
4. In its relationship to game, what is the present carrying capacity of our range; and using our present knowledge, to what extent can that carrying capacity be improved?
5. In the past we have been using largely native plants to improve our game lands. Would it be wise to introduce exotics? If so, what species?
6. Have satisfactory repellants been discovered to prevent the destruction of young plants and seedlings by various species of game or other wildlife?

(Continued on next page)



Photo by W. L. R. Drake

A portion of the representatives in attendance at the Commission's Land Management Conference.

7. Should we try to improve and develop our native species of plants so they will produce more game food?
8. To what extent should the Commission carry on a farming program on its marginal lands to maintain suitable conditions for farm-game species, and what should be planted?
9. Should the Cooperative Farm-Game Program be revised and expanded; or should the Commission purchase more abandoned farm lands?
10. How can research best be adapted to a game land management program? And should we use much more of the available Federal-Aid funds for research to develop better management plans?
11. How can we develop and manage our publicly-owned forested lands so that various species of game will remain in the forests and not encroach upon the neighboring farms?
12. To what extent can forestry and wildlife management be combined or integrated to better advantage on all public lands?

These are a few of the problems which confront the Game Commission today, and as you will appreciate many of them are by no means confined to the Game Commission alone. They are general problems of as much interest to you as they are to us. Some of them are specialized problems which fall directly into your specialized field. We hope that the Secretary of Agriculture will help us with our fertility and soil problems; that the Secretary of Forests and Waters will guide us in the selection of plants and seedlings; that the many federations of the State will help to guide our thinking relative to the overall management of game lands; that the wildlife editors will assist in educating the general public in order that the program, as finally formulated, will be acceptable to the people of this State. And last, by no means least, we solicit the guidance of the Governor in the hope that the other departments of the Government will furnish their experience and counsel to help the Pennsylvania Game Commission to continue to be first throughout the Nation in the conservation of wildlife.

Quiz Program

(Continued from page 11)

out and aired so that all rough spots are eliminated before it is put into effect.

Q. Is it true that members of the Game Commission receive an annual salary of ten thousand dollars and that Mr. Leffler as President of the Commission, receives fifteen thousand dollars annually?—Florence Dodds, West View, Pa.

A. Members of the Game Commission do not receive one penny for their services; to the contrary many of them have on more than one occasion helped to support the program with their own personal funds. All their time and effort is contributed to the sportsmen free.

INFORMATION TO SUPPLEMENT ADDRESS BY PRESIDENT ROSS L. LEFFLER CONFERENCE ON MARCH 8, 1944

SUMMARY OF LANDS OWNED OR CONTROLLED BY PENNSYLVANIA GAME COMMISSION DECEMBER 31, 1943

		Acres
State Game Lands		742,362.0
Cost of State Game Lands	$2,869,250.02	
Average per acre is $3.86		
183 Blocks in 62 Counties		
209 Refuges on State Game Lands		59,754.0
State Game Lands Open to Public Hunting		682,608.0
86 Refuges on Other Public Lands		59,507
State Forests Total		1,654,283
Allegheny National Forest		431,502
53 Auxiliary Refuge Projects (General Classification)		45,580
58 Refuges		12,078
73 Cooperative Farm-Game Projects		153,729
759 Refuges		6,065
1967 Safety Zones		36,043
94 Game Propagation Areas		27,981
5 Dog Training Preserves		2,668
2 Archery Hunting Preserves		1,985
GRAND TOTALS:		
1206 Refuges Controlled by Game Commission		165,385
501 Game Management Areas Owned or Controlled by Game Commission		1,033,812
Closed to Public Hunting		171,048
Open to Public Hunting		862,764
128 Special Wildlife Refuge Projects		43,284
234 Safety Zones		2,644
158 Refuges		5,388

COMPARATIVE STATEMENT OF LAND SECURED FOR GAME MANAGEMENT PURPOSES

Div.	May 31, 1930 (Acres)	May 31, 1934 (Acres)	May 31, 1938 (Acres)	May 31, 1940 (Acres)	Jan. 1, 1942 (Acres)	Jan. 1, 1944 (Acres)
A	17,473	21,416	60,800	107,201	116,272.0	116,286.3
B	27,650	46,309	77,082	119,441	133,488.0	133,019.9
C	54,631	125,667	144,397	157,391	168,916.0	170,262.3
D	33,751	66,535	109,165	129,211	136,115.0	144,057.5
E	117,513	185,739	203,077	225,423	218,252.0	231,056.0
F	30,383	55,224	79,267	103,909	112,465.0	116,036.2
G	31,793	29,416	79,374	113,883	113,620.0	120,963.7
Total	313,194	530,306	753,162	956,459	999,128.0	1,031,681.9

Note: The above figures do not include lands under contract for purchase, State Game Propagation Farms, nor Special Wildlife Refuge Projects.

SUMMARY OF LANDS OWNED OR CONTROLLED BY THE PENNSYLVANIA GAME COMMISSION AS OF JANUARY 1, 1944 (BY DIVISIONS)

	S. G. L.	Prim. Ref.	Aux. Ref. (Gen. Class)	Aux. Ref. (Farm-Game)	Spec. Preserves	Game Propagation Areas	Total
Div. A	27,349.0	1,245.0	5,222.0	76,702.3	160	5,608.0	116,286.3
B	117,530.3	2,202.0	5,221.0	.....	....	8,066.6	133,019.9
C	151,797.3	13,062.0	2,770.0	.....	800	1,833.0	170,262.3
D	107,686.9	20,959.0	5,740.0	9,106.6	....	565.0	144,057.5
E	188,749.0	14,728.0	17,487.0	.....	....	10,092.0	231,056.0
F	87,231.2	4,686.0	3,006.0	18,863.0	985	1,265.0	116,036.2
G	62,018.5	2,625.0	6,134.0	49,057.2	578	551.0	120,963.7
Totals	742,362.2	59,507.0	45,580.0	153,729.1	2,523	27,980.6	1,031,681.9

Sportsmen vs. Juvenile Delinquency

(Continued from page 16)

All types of activities can be undertaken by a junior association. Various committees can be appointed by its president, it has its own checking account at the local bank, holds its own meetings, etc.

Hikes, picnics, weiner roasts, swimming, hunting, fishing, camping, skating, community service such as scrap collection and selling war bonds, studies of game, fish, conservation, arms and ammunition are but a few of the activities that can be undertaken.

In two short weeks our junior membership numbered 150 boys. This is proof that an organization of this type appeals to the boys. Let them build their own organization and the feeling of responsibility and reliance is instilled deeply.

In addition to sponsoring the junior group, our organization also sponsors about four public meetings throughout the year at which we present speakers, movies, serve lunch and award door prizes and admission to these affairs is free. This is our answer to juvenile delinquency and our method of informing the public of our interest in outdoor and civic problems. We believe we can accomplish much more with the wholehearted cooperation of all the people, but we must show them that we merit their cooperation. Pure streams, sufficient lakes, an abundance of fish and game, recreational facilities, etc., can be had. It's up to us. Our forefathers were shortsighted in this respect. Will we repeat their mistake? Will we continue to be a great nation, rich in money but poor in providing facilities for recreation? IT'S UP TO YOU. We're doing *our* part.

To Mr. Arthur T. Thompson, Editor of the Daily Citizen, and P. H. Dougherty, Bill Girgosh, sports editors go the credit of publicizing this venture.

Winter Feeding—Is It Really Necessary?

(Continued from page 9)

from 105° in some species up to 110° in others, a drop to 103.7° is a sub-normal temperature for ringnecks.

During January and February of 1941 a second out-of-doors experiment was started with ringneck pheasants. On January, 1941, after being weighed, 25 live-trapped females, at least 20 months old which had been held captive approximately a year, were placed in a square 36-foot pen. At the beginning, the average weight of the birds was 2.66 pounds and, as before, they lost weight during the experiment but it wasn't until the 16th day that the first pheasant died. Eleven others died between that and the 35th day of the test. At that time, after 35 days without food, there were still 13 birds living and able to fly and in general take care of themselves, even though they had lost in all, 42.3 per cent of their weight of January 4.

The weather during this period was extremely severe with temperatures rarely rising above the freezing level and with one rain and frequent snows occuring.

In comparing the first experiment with that just discussed, the differences in survival time are outstanding. Just why the birds in the second test should endure so much longer than those in the first is not definitely known. However, there is evidence of the fact that the difference is due in part to the greater ability of wild stock to survive stress and to the fact that the second lot of birds was older than the first.

A third fasting experiment involving the ringneck was conducted during March, 1940. This was a combination out-of-doors and laboratory experiment involving nine artificially reared birds about nine months old. On March 1, all birds were weighed and placed in out-of-doors pens. After ten days exposure, they were weighed and divided into three groups, each containing two males and one female. Groups A and B were placed in the weather chamber under the conditions previously described while C was used as the control group. Group A survived an average of two to two and one-half days and the weight loss from the beginning was 26.7 per cent for the entire group. Group B perished after an average of three and one-half days with a total weight loss of 41.7 per cent; but the control group, C, survived an average of 11 days even though it lost 44.6 per cent of its initial weight.

From these tests it is obvious that the ringneck pheasant is a hardy bird capable of going ten days wholly without food even in the severest winter weather.

Wild Turkey

In March, 1940, experiments were started with the wild turkey involving an out-of-doors experiment with one pair and a laboratory test with three pairs. Of the laboratory groups, A lived an average of eight days and lost 25.7 per cent of their original weight while B lived an average of 13.5 days dying at 67.8 per cent of their initial weight. One of the birds of Group C was accidentally killed but the other lived for twenty-four days succumbing at 57.7 per cent of its original weight. The out-of-doors pair survived an average of 14 days, total weight loss being 42.4 per cent.

From these results, it appears that the turkey, like the pheasant is a hardy species, capable of fasting a full week without apparent ill effects. Extremely severe weather may cause exposure losses regardless of the quanity of available food.

Ruffed Grouse

Six ruffed grouse, all artificially propagated birds of various ages, were used in this fasting study. They were divided into three groups and fasted under the three standard sets of conditions described previously. The average survival period for Group A was between six and seven days and weight loss was 24.5 per cent, while Group B lived a little short of an average of eight days with a weight loss of 31.4 per cent, and the control's survival time was between seven and eight days with a weight drop of 31.6 per cent.



Wm. Eichelberger, left, and Loyd Reynolds, Dillsburg, feeding game in the South Mountains.

This is not a conclusive test both from the number and the type of birds used. However, it would seem that the grouse is a relatively hardy species and due to its habit of budding in the winter, it is improbable that winter causes these birds many hardships. An ice storm which glazes the limbs and buds of the trees is perhaps the worst hardship, but this condition rarely exists for more than three days at any one time, and the experiments have shown that a three days' fast will not seriously affect a grouse even in the most severe weather.

Hungarian Partridge

The Hungarian partridge, or the Hun as it is commonly called, was also tested under laboratory conditions. Three pairs of artificially propagated birds about nine months old were used in this series made during late March and early April of 1940 when they were divided into the three usual groups and tested under the regular procedure. The average survival period of the first pair, A, was 5.5 days with a weight loss, 40.1 per cent while group B averaged seven days with a weight loss of 39.9 per cent and the control specimens, C, lasted an average of 12.5 days with a weight loss of 48.8 per cent.

These experiments place the Huns on a medium basis as far as survival goes; they are not as enduring as the pheasant, yet can stand more severe weather without food than can the quail. Its highly successful introduction into the Canadian wheat belt would indicate a high resistance to exposure.

Bobwhite Quail

Thirty-eight artificially propagated bobwhite quail from nine to ten months of age were utilized in a laboratory experiment in March, 1941. This test was made in part to show the importance of covey size in relation to the quail's ability to survive periods of unfavorable food and weather conditions. With this study, the procedure varied a little in that one group of ten quail was placed in individual pens and confined to the climoactometer at 0° with the wind. The other two groups of 10 each were confined at a temperature of 0° with no wind—the main difference between these two groups being that one was confined in individual pens while the other ten were together in a large pen where they could "huddle" in a characteristic manner. Four males and four females were placed in the laboratory room under standard conditions. The birds in the wind at 0° lived an average of 1.9 days with a weight loss of 17.0 per cent. The individually confined birds at 0° with no wind lived an average of 2.5 days with a weight loss of 23.7 per cent, while in comparison, the group which shared the same conditions except that they were allowed to "huddle" in their natural manner survived an average of 4.1 days even tho' they were only 69.1 per cent of their original weight. The eight control specimens lived an average of 3.9 days with a weight loss of 31.8 per cent.

The data above discussed stresses two important points. First, in comparison to the ringnecked pheasant and the turkey, the bobwhite is relatively weak in its ability to stand lack of food coupled with severe weather. Secondly, it is better able to withstand severe weather and lack of food, if it is a member of a covey numbering more than five birds. Coveys of quail with less than five members have little chance to survive the winter: Consequently the practice of shooting all the birds from a covey but two or three which are left for "seed stock" is not a wise one for the remaining birds have little chance for survival. The quail's natural tendency to "huddle" in cold blustery weather keeps many birds from freezing to death. The experimental evidence showed that the birds which were allowed to huddle withstood the unfavorable conditions better than those confined to individual pens.

From a comprehensive view of the results of these experiments with the ringneck, the quail, the grouse, the wild turkey and the Hun, it would seem that all of these excepting the quail are fairly hardy individuals able to withstand approximately a week of

(Continued on page 32)

Notes From the Federation

(Continued from page 19)

reach 30% to 35% on the basis of current deferments.

That a preliminary report of licenses sold during 1943 shows a decrease of over 70,000. Last year not quite 570,000 were issued against 640,000 the year before. Non-residents, however, for some unaccountable reason, went higher than at any time since 1940. In 1942 a little over 8,000 were issued; in 1943, 11,800. The Commission is in excellent financial shape, despite the drop in revenue, because it has for several years been setting aside a war reserve to take care of the lean periods which may confront it.

The Commission's land acquisition and land leasing program has been going right along. In 1930 the department had 313,000 acres under its control, and on January 1 of this year the figure totalled 1,031,000 acres. Lands in each of the seven divisions have been pretty much equalized.

Materials and supplies for carrying on some phases of the work are conspicuous either by their absence or priorities which retarded their purchase, but this is only natural. As an example, we ran into a difficult situation at one of the game farms. We were assured that the feed supplied by the vendors would be equally as good as pre-war feed because they had substituted certain materials. To our astonishment, after we tried it, we found that the feeds were not up to par and some additions had to be made to overcome the deficiencies. For instance, on quail, we started to get hatches of 12% to 15% when we should have been getting 80% or 85%. It took a little while to find the trouble. Fortunately there were enough expert brains at State College, Washington, and our own staff to discover the difficulty.

The pheasant program also was hit hard. The Jordan farm in Lawrence County would have been closed entirely in mid-summer had it not been for the fact that the Commission had stored corn at various points, most of it raised on a crop-share basis. We had to release some of our birds earlier than usual as a result of the serious food problem.

One thing the Commission has done in recent years is to avoid expanding its own game farm program and to encourage private breeding in the state. Unfortunately private breeders this year had the same troubles we had, and many of them were unable to fulfill their contracts. However, this spring, through purchases and our own game farm operations, we are distributing approximately 33,000 pheasants and over 9,000 quail.

We have the best turkeys at the turkey farm we ever had, and about 600 birds are being distributed, of which 189 will go into turkey propagating areas.

The Commission didn't purchase any rabbits this year for stocking purposes from the mid-west because of transportation conditions and the fact that none of the big reliable shippers were willing to guarantee live arrival; also the Commission felt it ought to concentrate its efforts on transferring rabbits out of victory garden areas, city parks, institutional grounds, etc. Our goal for the winter has been set at 75,000. Whether we reach it or not depends upon the cooperation we receive from agents and, of course, the weather.

The predator situation became so pronounced, due to the absence of trappers and their inabiilty to get traps, that the Commission legalized the use of snares in 36 additional counties. It also saw to it that every bit of Commission owned trapping equipment was put to use at once. In addition Game Protector Arthur Logue was instructed to work with each of the seven field divisions to help coordinate a trapping program and to give trapping instructions to our own men and interested sportsmen.

The Commission is managing its land as intelligently as possible with the labor available. Sometime ago a survey of our lands was made to determine how much saw timber, pulpwood, etc., could be harvested from those lands. Contracts for cutting are being let as fast as possible, and there are many areas now undergoing a systematic cutting operation.



Young trapper Bobby Stormer, R. 1, Brookville, with one hen the skunk did not get.

The Commission has called a special conference for March 8 and has invited the representatives of the various State and Federal Agencies and educational institutions that have expressed an interest, also civic organizations, including the Federation of Sportsmen's Clubs, to meet with it to consider a general long-term program and what research work is needed in connection with future land management. It already has a tentative program set up to utilize something like 2,000,000 man-days over a period of from five to eight years, and from two to four million dollars in a lands management development program alone.

Another project contemplates a state-wide study or survey of the mammals and their inter-relationships, looking toward the development not only of information that the Commission must have to do a better job, but to produce ultimately a real textbook that can be used in schools and colleges.

FISH: Some of the problems with which the Fish Commission are confronted were outlined by Commissioner Charles A. French as follows:

When meat rationing went into effect it became necessary for us to have points to get liver. We got the points after fighting for almost two weeks, but then couldn't get the liver. About 90% of it is being made into vitamin pills for the boys in the service. We did find a substitute, however, and have bought about 140,000 tons of beef melts. We fed it to our crop for about five months now and they grow just fine. Furthermore we pay only 5c a pound for it whereas we paid 24c for liver. If we had to depend on our old system we would be out of business, because we used to buy from 200 to 250 tons of liver and that much is not available now.

When we solved the meat situation we started to have serious accidents with our trucks, losing 12 of them in 1943. We had 42 when we started out last March; since that we have lost 13. We now have only 29 to cover the state. It is a serious thing when men want trout in the streams and we can't find trucks to haul them. Some sportsmen asked about getting brown trout in brook trout streams, and we had to make further changes. It was a case of doing so or not getting the fish out. So we stock the fish closest to the hatcheries. We did substitute brooks for browns and rainbows.

So many of our skilled men at the hatcheries have gone into the armed service that we are now operating in a very precarious manner. We have also lost a lot of our truck drivers and have to put on men who are not familiar with the various districts. That was confusing many times last year. Likewise we have lost a lot of our wardens, and until we find a solution to this problem we shall have to depend upon the sportsmen to help enforce the law.

Our immediate problem is the real one. We are going to start distributing trout in about two weeks. How far we will get we don't know, for the simple reason that the 29 trucks we have will have an average of 85,000 miles per truck on them. If they were driven on hard roads it wouldn't be so bad, but when they are driven where our trucks have to go it is a different story. However, the Commission will do its very best.

POST-WAR PLANNING:

Mark S. James, Director of the Post-War Planning Commission explained some of the plans being formulated by that Commission:

We have been attempting to weld together the resources of the State Department of Highways, the State Department of Forests and Waters, and the State Fish Commission for the purpose of formulating a post-war program that will provide greatly needed fishing areas at all points in the State for devotees of that sport.

At the same time, according to the plans we are now surveying, the program will add to the fertility of our farm lands by damming streams and causing springs long dry to flow

(Continued on page 31)



Three of a pack of seven dogs born and reared wild in the Mahoning Valley district of Schuylkill County. The pack consisted of an old male and female and five pups showing a breeding chiefly of Collie dog and mongrel strain. Thomas Reigle, Deputy Game Protector, Summit Hill, who submitted the photo said that the three animals shown were killed by Harold Herpock, accompanied by his 12-year old daughter, with a .22 cal. Hornet rifle at ranges varying from 150 to 200 yards. They were extremely wild and shy. Plenty of evidence of the pack's having killed game and domestic fowl was observed.

How to Get a Big Buck

*By Fred Truxal**

Many persons who have come from distant points to hunt deer in Potter County's famed forests have as yet failed to get a buck to tie to their running board so that all the world might see. There are so many, in fact, that we felt it our bounden duty to do everything in our power to help them save face when they go home after having spent their annual vacation and their year's savings.

We made a survey among the older, more successful native hunters to determine their methods so we might pass them along to our readers. They all agree on the following certain requirements and we feel sure that, if followed in detail, their practical use will result in success.

The first necessity is a red hat. It should be fiery red, perhaps even warm to the touch, and should be a bit crumpled—the more the better. To match the hat there must be a red coat and red-topped socks peeping boldly from the top of boots which require 30 minutes to lace.

Some members of the craft maintain that a red nose is also a necessity, but its value is extremely doubtful, except, perhaps, as a means of keeping one's hands warm while standing on watch.

Your other articles of wearing apparel are less important, so long as you have long, scratchy underwear, two pairs of socks, three shirts, and at least two pairs of heavy pants.

A rifle or shotgun, a mean-looking hunting knife in a leather sheath strapped to your side, a bulging lunch, field glasses, the required license displayed prominently on the middle of the back (so your fellow hunters might know who they shoot), a three-day beard, and a certain air of cocksure ability complete your makeup.

If you have met the foregoing requirements, you are all ready to take to the woods in the role of deerslayer.

Waste no time from here on. Get up at 4:30 in the morning (if you are in bed yet). At 6:00 o'clock you should be nearly dressed. Then, while waiting for your turn at the breakfast table, clean your gun, handling it all the while as though it were made entirely of "A" coupons. Some people, in the process of the cleaning, move the sights ever so little each day, which tends to make hunting a true sporting proposition and brings great delight to the hearts of all deer. This really should be avoided if possible.

After breakfast you gather your rig together and get into it. After you have become accustomed to it and are able to move, glide out to the car with the rest of the fellows. After you have pushed the car four blocks you are no longer cold and your clothes seem to loosen up a bit so that you can climb in and take your place with the other nine fellows with ease.

Don't try to make contact with the seat at first. Just let yourself down easy in any spot that looks available and, by the time you get to your destination, you will be wedged in securely. At this point the skill of a hunter is determined by his ability to be the first one out of the mess and into the woods.

Now as to how to get that big buck.

This is the point upon which all successful hunters agree and must be followed specifically if you are to get your share of free ration points for you and your very friendly (in December) neighbors. On a certain day sometime before the season closes, at a certain hour and a certain minute, a certain 8-point buck is going to pass through a certain clearing on a certain hill in a certain section of Potter County, possibly not more than five miles from the center of Galeton. If you are standing at the edge of that certain clearing and possess a certain ability to hit what you are looking at, the chances are ten to one that you will be the certain hunter to bag that certain deer.

Simple, isn't it?—By permission of Fred Truxal, Asso. Editor, *The Leader Dispatch*, Galeton.

* Associate Editor, *The Leader Dispatch*, Galeton.

WHAT HAPPENED TO THE HUN

(Continued from page 15)

hell or high water. Anyways the game department done all they could to get 'em started, so the least others can do is keep checkin' for a while.

WILDLIFE CONSERVATION

ITS PAST, PRESENT & FUTURE

(Continued from page 12)

individual needs of a species the more complete will our success be in the management of that species be it bird, or mammal, or fish. We are constantly making progress in this knowledge through our wildlife research and in the future we should have a much better basis for the management of the various species. In any program of this sort cooperation is required of all interested individuals and this includes the farmer, forester, soil conservationist, hunter, trapper, angler, and naturalists, both professional and amateur. If we are ever to achieve a genuine solution to these problems, as well as all other conservation problems, all must work together.

A BUCK FOR AN APPLE

Mrs. Muir Waller of Nova Scotia, is one buck ahead because she reached for an apple instead of a gun—and the buck is alive, too. On the final day of the deer season, according to Hunting and Fishing in Canda, a young male deer strolled unconcernedly into her shooting camp, and approached her without fear. Not having the heart to shoot it, she produced an apple which the deer ate with relish. When she broke camp, the animal climbed into the car and curled up on the back seat. On arriving at her farm at McClure's Mills, the buck made itself at home and has remained there ever since. Mrs. Waller believes the deer to be a tame one that had wandered back to the woods.

Notes From the Federation

(Continued from page 29)

again. It would not be possible to estimate the increased value of agricultural acreage in Pennsylvania that could result from such a program. This State-wide program will be an important factor in flood control, and will provide employment for literally thousands of workers everywhere in the State—at a time when we are going to find ourselves hard pushed to provide profitable employment.

Another program is that of re-vegetation. One of Pennsylvania's definite post-war commitments is a 500 million dollar highway improvement and extension program. Now we all know that while a highway is one of our greatest necessities, we must have a follow-up program of re-vegetation.

This will have a three-fold benefit. First, it will provide needed wildlife habitat; second, it will beautify our roadside; and third, it will prevent thousands of tons of silt from being swept into our streams with each rainfall.

I would like to tell you of still another project now being surveyed. That is a gigantic state-wide program for sewage disposal. This, too, is not yet in the state where it can be made public in detail, but I think it will suffice if I tell you that with it we hope to provide a 600 million dollar sewage disposal program available to any community in the State, and to be financed without imposition of additional taxes or impairment of any community's borrowing power.



"Look! Fresh tracks of a couple hunters following a bear—we'll ask them for directions."



Photo by Arthur Swoger

Edward Asbury, of Homewood, with 33½ lb. wildcat—a big one—shot near Driftwood, Elk County on the first day of bear season, 1943.

I tell you these things because I want you to know—and to carry the word back to each of your home communities—that your State government is not sitting idly hoping for the best in the critical post-war period that is ahead. We are planning and we are doing things. When the post-war period comes, Pennsylvania will be ready.

I would like to say I think you have chosen a very fitting day in which to hold this gathering. It is Lincoln's Birthday, and in Abraham Lincoln the world saw the very epitome of a true sportsman. He was on the side of the under-dog. His code of living was the code of fair play, and he was a great fighter. I think those three qualities provide as good a definition of the term "sportsman" as you can ever find.

ELECTION

At the conclusion of its meeting the Federation elected the following officers to serve for the current year:

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"I'm writing a book on the Life and Loves of a Muskrat."

Comments on the Antlerless Deer Season

(Continued from page 17)

special attention to farm woodlots, to kill if possible deer on farm lands causing damage to crops. The lack of hunting on such woodlots was quite striking. I ran through farming country from Morris to several miles east of Liberty in Southeastern Tioga, and returned to Wellsboro again on roads running through farm lands bordering on mountainous areas. While large woodlots were numerous, and examination of the likely crossings showed evidence of deer in nearly all instances, yet there was an absolute lack of hunters in and near the woodlots.

I made a special point of contacting several farmers to get their reaction. The gist of their explanation was that much hunting in buck season had driven the deer to the mountains, making it not worth while to hunt the woodlots. When I pointed out the fact that numerous tracks proved deer to be present, they explained it by saying that the hunting for does on the mountains had driven them back again.

Upon inquiring as to whether the farmers welcomed the anterless season, I found no one enthusiastic about it. They admitted a general lack of food in the woods, stated that there was some damage to crops, but they liked to have them around, and didn't care to have the city hunters in their territory. About the same reactions were the result of inquiries among filling station operators, storekeepers, and some village dwellers contacted. There seemed to be a reluctant admission generally that food was scarce, but with no arguments put up as to what to do about it.

Upon listening for the sounds of rifle shots in several parts of the County, especially along route 6, it was again striking that all the shooting seemed to be far back in the mountains. When I did see five large deer hanging on a porch near a very large woodlot running to a mountain ridge on the north side, I stopped to inquire about where they were killed. I was not surprised to be told they were killed some ten miles away, near the Lycoming County line. I thereupon made a careful examination of the nearby woodlot area, and found as many deer tracks as I saw in any part of the county.

In order to check food conditions in one section where I heard much shooting far back in the mountains North of Route 6, and North of Huey Baker's headquarters, I drove several miles into that area. I saw many deer tracks in the snow, saw several deer which had been killed, but no congestion of hunters whatever. As to the food supply, the deer line was in much evidence, no soft or hard maple or aspen sprouts whatever, no blueberry bushes, acorns or other nourishing food. Beeches with the leaves clinging to the small trees lined the borders in places, untouched of course by the deer, and it was not hard to understand what has happened and will happen to the creatures forced to feed upon such roughage as is available through a hard winter.

On the second day of season I accompanied Huey Baker and a Deputy Protector on checking trip which took us to Harrison State Park area, Colton area, to points near the Potter County line, and elsewhere through the best deer hunting sections. Only where chemical and other cuttings had been made did I find an adequate food supply. Such areas were in striking contrast to conditions observed in general over the county. Quite a lot of deer killed in the county were observed and examined during this trip. A few were large specimens in good condition, and the larger number were small deer with the usual proportion of males of anterless age. About four large deer with shed antlers were all in this category I saw during the open season.

All hunters and hunting parties observed were hunting either from cars, that is to say in close proximity to points where they had driven and parked their cars, or from places where they had obtained room and board near hunting territory. I did not run across a single hunting camp which was occupied by a group of hunters as is the case in regular deer seasons.

The figures I have heard for the total kill of anterless deer in Tioga County was four hundred and fifty. The pre season expectation was one thousand deer for an issue of five thousand permits. I believe the actual number of permits was around four thousand. In view of rapid natural increase in deer population, coupled with the fact that the food conditions can be expected to further deteriorate until such time as more and larger timber cuttings can be expected, the outlook is not too good. In view of the present high prices of lumber and timber products, which may not hold after the war, it seems that now is the time when lumbering could best be carried on in a larger way. We have of course the scarcity and high price of labor to contend with, and that is the most serious present complication.

Winter Feeding

(Continued from page 28)

fasting in normally severe weather without apparent ill effects. From these studies, it may be correctly stated that it is not the lack of food alone, always, which causes high winter mortalities among game birds but rather a lack of food for extended periods coupled with severe weather.

Naturally any unusually severe blizzard or freeze will cause the death of some birds regardless of food conditions. For example, after severe storms with sudden temperature drops, accompanied by high sharp winds, birds in good flesh and with full crops have been found frozen to death. Another weather condition which may be responsible for the death of ground roosting birds like the quail and pheasant, is a heavy snow followed by a quick freeze. When this happens the birds are imprisoned under the snow and death usually follows.

Several persons have asked who took the "Springtime" photo which appeared on the March frontispiece. Our apologies to Mr. H. B. Kirk, Division of Entomology, Pennsylvania Department of Agriculture for our failure to give him due credit.

WISE OLD SPORT



Here's to the memory of wise, old Sport,
Who lived a lot in a life so short;
Tho the years may pass, and our eyes grow dim,
We'll ever have pleasant thoughts of him:

Can we ever forget the way he'd look
With threatening eyes as a bone he took?
Or the friendly wag of his sturdy tail
When the R.D. man delivered the mail?

Sport was gentle and playful, too,
But an ardent hunter, and home-guard true.
In all the wide world he knew only one fear-
He'd tremble in terror when thunder rolled near!

And, of course, at times, he'd grumble at folks,
But his throaty growls were only jokes;
If, on occasion, he treed a cat,
Or mauled a woodchuck—what of that?

He only followed dame nature's plan,
The same as his two-legged brother, man.
I can see him still in his sleek, tan coat,
With the badge of white at his tawny throat,

Or, stretched at ease, head pillowed on toes,
With a smudge of earth on his cool, black nose!
His last trail led to the land of Nod,
Where there is no fearful Thunder-god;

Where there are no fleas—nor slushy snows
To freeze in balls between his toes.
There in that happy hunting ground,
I'm sure he's contented the whole year round.

Yet, I do believe, when the nights grow keen
And Woodland creatures frisk and preen
That his spirit returns once more to roam
Through the fields and woods round his old farm home.

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PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XV, NO. 2

EDITORIAL

May, 1944

IN THIS ISSUE

★

Tularemia
By Dr. I. H. Alexander

★

The Land Management Program

★

Notes on the Common Woodchuck
By Jacob Bates Abbott

★

Hunting Black Marauders
By Frank Floss

★

A Pennsylvanian Hunts in the Lone Star State
By Lt. Clair R. Stine

★

Winter Feeding—Is It Really Necessary?
By Helen Merritts

★

Some of My Experiences with Hawks
By M. E. Sherman

★

With Those in the Service

★

Cover by Joe Wolf

★

Pennsylvania—"The Dogwood State."

It is purely coincidental, though exceedingly appropriate, that we should have selected a dogwood painting as the cover for this issue of GAME NEWS. Appropriate because of a statewide movement now on foot to foster the growth of these beautiful native trees.

A group of nature loving people known as the Bucks County Dogwood Association is behind the program, and because such a worthwhile endeavor merits public support the Game Commission is happy to have an opportunity to help solicit that support. One of its former members, Mr. Adolf Muller of Norristown, recently deceased, spent a great portion of his life in behalf of the dogwoods, and a better choice of tree to arouse interest could not have been made. All the dogwoods originally came from this country and the white flowering species is native in two-thirds of the states. The original form of the red flowering dogwood ("Our Northern Shrubs" by Harriet L. Keeter) so frequently seen in parks and gardens came from Virginia.

In thinking of the trees from an esthetic standpoint, we must not for a moment overlook their economic value. Many game and song birds are known to feed upon their berries and because of their accessibility in the fall they are of special value to migrating species.

Why not encourage more city parks, more schools and clubs to plant dogwoods, both whites and pinks? Schools and clubs have planted them generously in the past and will no doubt be glad to increase their activities in the future.

In the well put resolution adopted by the Bucks County Association—"Be it therefore resolved that we appeal to all people who live in America, love and appreciate America, that when they plant trees they give preference to native varieties, and therefore cause our highways to become avenues of famous American trees, our parks to become settings of glorious flowering native trees, our school yards to contain collections of truly American types . . ."

Just as we were going to press with this issue His Excellency, Governor Edward Martin, appointed two new Commissioners to fill existing vacancies, thus giving the Game Commission its full quota of eight members. The two new appointees are Mr. John C. Herman, Dauphin, and Dr. Carl B. Rosenkrans, East Stroudsburg, whom we will introduce more fully to our readers in the next issue. Our congratulations and best wishes to the new Commissioners.



Photo U. S. Marine Corps.

Dogs for Defense

Stimulated by the unqualified success of the Marine Devil Dogs at Bougainville, the Marine Corps is now seeking more recruits for their K-9 Corps. Experience with jungle warfare proved the large type Doberman Pinscher top dog in this field of combat, and a special contingent of male Doberman Pinschers, weighing at least 60 pounds, standing over 25″ at the withers, between one and four years of age and not gun shy, is now needed.

To aid in the procurement of such dogs, Dogs for Defense, Inc. has instituted a breeding program planned to produce the large fearless Dobermans required by the Marine Corps. The Doberman Pinscher Club of America will make Doberman studs of this calibre available to Dogs for Defense, Inc. and it is hoped that breeders and owners throughout the country will lend suitable brood matrons. Any one wishing to aid this vital project should communicate with Lt. W. Newbold Ely, Ambler, Pennsylvania, DFD Regional Director and National Chairman of this Breeding Program.

TULAREMIA

*By Dr. I. H. Alexander**

DURING the 1942 small game season, four Pittsburgh sportsmen made a trip into Northwestern Pennsylvania. Game was plentiful, and all returned to their homes well satisfied with the success of their trip. Five days later one of the sportsmen noticed a small ulcer on the back of his hand. The ulcer showed no tendency to heal, and he later discovered small red lines extending up the forearm. In a few days the glands at the elbow and under the arm became very much swollen and extremely painful. He soon developed a high temperature, chills and sweats, with extreme exhaustion. He was confined to the hospital for many weeks, where he made a very slow recovery, finally returning to his work after a loss of four months' time.

Two other members of the party developed Tularemia (rabbit fever) a short time after the first victim had taken ill. All recovered, and all were incapacitated for a period of from three to four months.

Tularemia is a far more serious disease than is generally recognized by the sportsmen. It can be prevented from reaching epidemic proportions, if proper measures are taken in time. The only known measures to prevent the spread of this disease are to prohibit the importation of live rabbits for stocking purposes and also of carcasses of market rabbits from heavily infected areas.

If you will consult Chart No. 1 showing the geographical distribution of 16,447 cases of this disease with 1,191 deaths occurring in the United States from 1924 to 1942, you will note that the areas from which we secure our rabbits for stocking, as well as for marketing, are heavily infected. Further, 1,191 deaths from Tulremia should convince all sportsmen that this is a situation which should not be taken too lightly.

In 1925, the first case of Tularemia was reported in Pennsylvania. The distribution of the 282 cases and 25 deaths is shown on Chart No. 2. Allegheny County has had a very sad experience with this disease, with 104 cases resulting in 12 deaths—more than half of these from the handling of market rabbits.

Philadelphia has had 25 cases, and the source of infection shows that more than fifty percent of these cases were traced to market rabbits. In Franklin County with 21 cases and York County with 23 cases, all were traced to rabbits shot by local sportsmen.

Ninety-one cases of Tularemia, occurring in this State from 1925 to 1935, gave the following data as to the source of infection:

57 in Pittsburgh, dressed market rabbits; 1 in Pittsburgh, did not state source of rabbits; 2 in Philadelphia, dressed rabbits killed at Girdletree, Md.; 1 in Philadelphia, dressed rabbits killed at Winchester, Va.; 1 in Delaware County, dressed a rabbit received from Virginia; 1 in Allegheny County, dressed a rabbit killed in Virginia; 1 in Franklin County, dressed a rabbit killed in Virginia; 1 in Lancaster County, dressed a rabbit received from Virginia; 1 in Montgomery County, dressed a rabbit killed in Maryland; 8 dressed rabbits, hunted and killed in Allegheny County; 8 dressed rabbits, hunted and killed in Franklin County; 3 dressed rabbits, hunted and killed in Perry County; 1 dressed rabbit, hunted and killed in Adams County; 1 dressed rabbit, hunted and killed in Butler County; 2 dressed rabbits, hunted and killed in Lancaster County; 2 dressed rabbits, hunted and killed in Fayette County.

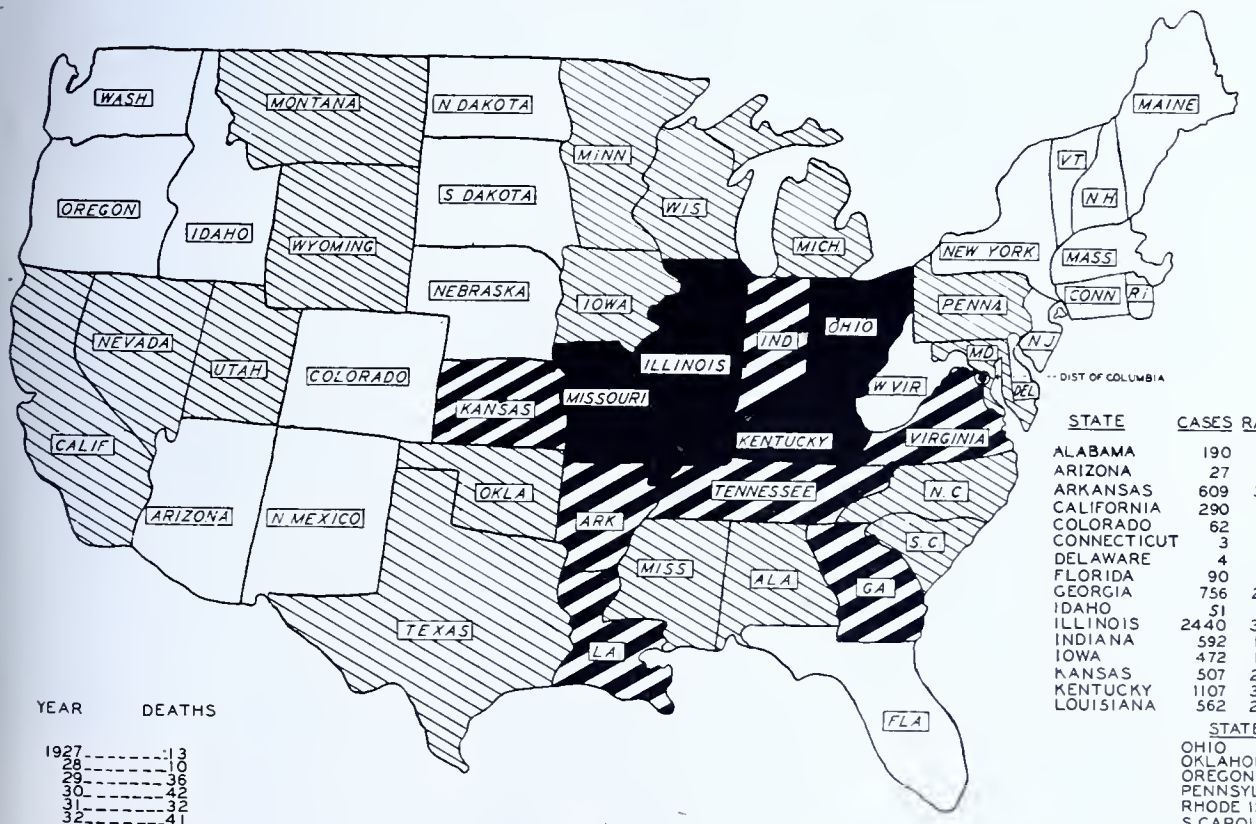
Tularemia is an acute infectious disease caused by the Bacterium tularense. It is usually a disease of wild hares and wild rabbits, but more than twenty kinds of birds and wild animals have been known to have the disease, and later to have infected humans.

Man contracts the disease from handling the infected animal with bare hands or from bites of ticks and flies that have previously

(Continued on page 28)

*Director Department of Public Health, Pittsburgh, Pennsylvania

CHART NO. 1—GEOGRAPHIC DISTRIBUTION OF 16,447 CASES—1924-1942



STATE	CASES	RATE	STATE	CASES	RATE
ALABAMA	190	6 7	MAINE	1	0.1
ARIZONA	27	5 4	MARYLAND	366	20 1
ARKANSAS	609	31 2	MASSACHUSETTS	5	0 1
CALIFORNIA	290	4 2	MICHIGAN	197	3 7
COLORADO	62	5.5	MINNESOTA	396	14.2
CONNECTICUT	3	0 2	MISSISSIPPI	160	7.3
DELAWARE	4	1 5	MISSOURI	1086	28 7
FLORIDA	90	4 7	MONTANA	252	45 0
GEORGIA	756	24 2	NEBRASKA	39	3 0
IDAHO	51	9 7	NEVADA	169	153 3
ILLINOIS	2440	30 9	NEW HAMPSHIRE	1	0 2
INDIANA	592	17 3	NEW JERSEY	42	1 0
IOWA	472	18 6	NEW MEXICO	74	13 9
KANSAS	507	28 2	NEW YORK	71	0 5
KENTUCKY	1107	38 9	N CAROLINA	232	6 5
LOUISIANA	562	23 8	N DAKOTA	40	6 2

STATE	CASES	RATE
OHIO	1346	19 5
OKLAHOMA	262	11 2
OREGON	84	7 7
PENNSYLVANIA	253	2 6
RHODE ISLAND	2	0 3
S CAROLINA	238	16 5
S DAKOTA	9	1 4
TENNESSEE	553	19 0
TEXAS	462	7 2
UTAH	374	68 0
VERMONT	0	0 0
VIRGINIA	996	37 2
WASHINGTON	22	1 3
W VIRGINIA	86	4 5
WISCONSIN	359	11 4
WYOMING	382	152 3
DIST OF COLUMBIA	126	19 0

YEAR	DEATHS
1927	13
28	10
29	36
30	42
31	32
32	41
33	54
34	54
35	45
36	47
37	50
38	139
39	258
40	191
41	137
42	42
TOTAL	1191

* INCOMPLETE — 24 STATES AND DISTRICT OF COLUMBIA

CASES AND DEATHS COMPILED BY U S PUBLIC HEALTH SERVICE

DR I H ALEXANDER, DIRECTOR DEPT OF PUBLIC HEALTH PITTSBURGH, PA

Miller.

The Land Management Program



Photo by Leo A. Luttringer, Jr.

Timber sales on some State Game Lands have already paid the initial cost of those lands.

THE Conference on the Game Commission's Land Management Program, the first of its kind ever held in the United States, was an outstanding success both in attendance, interest, and future possibilities. Over seventy persons were present, and no less than twenty-five conservation and public agencies were represented.

His Excellency, Governor Edward Martin, welcomed the group, commended them for pooling their knowledge in behalf of a common cause, and encouraged them to plan well and wisely. He said he has been a great believer in all conservation for a long period of years, and that the time has now arrived when it is absolutely necessary to conserve the natural resources which we still have left. He pointed out that it won't do us any good to acquire enormous forest lands, for hunting or fishing, unless we care for them after we acquire them. And, he emphasized again, proper care means careful planning, and after the plans have been thought out to put them into effect.

The Governor referred to one statement he made before a forestry group previously, i. e., that when we assumed control of the land here in Pennsylvania we had nine inches of soil and that has now wasted away until we have six inches. All that is between us and starvation is that little blanket of rich soil. Now we have to start to build up that soil, and one way to do that is to restore the forests. Such restoration will not only help build the soil, it will prevent floods, a serious menace because we are more subject to destruction from floods in Pennsylvania than any other state in the Union.

In closing, the Governor congratulated those assembled for their presence and assured them that anything he could do to aid and help in the management of these great areas he would do. He reminded them of the number of ghost towns in the state and warned there will be more of them unless we enter into management of our natural resources with great intelligence.

At the conclusion of the Governor's address Hon. Ross L. Leffler, President of the Commission, outlined (see article page 3, April GAME NEWS) the numerous problems facing the department and called upon representatives from the various agencies present to express themselves freely on the subject under consideration.

Mr. Walter A. Gresh, Assistant Chief Federal Aid Division, U. S. Fish and Wildlife Service, Chicago, was the first person called upon to contribute to the discussion, and we are excerpting from his remarks insofar as they have a specific bearing on the Pennsylvania program. In recent years the U. S. Fish and Wildlife Service has obtained lands upon which upland game management is the principal wildlife objective. One of these, located in Kentucky, Mr. Gresh mentioned particularly because wild turkeys, deer and quail are the major species on which management is being conducted. The method is very simple. It consists of protection and putting into effect land uses that will increase the available food and cover for the species mentioned. More than 50 cooperative farmers are planting various grains and game foods, including Lespedezas, Johnson grass, winter wheat, rye, corn, barley, millet, soybeans, etc. These cooperative farmers live adjacent to or near the area and operate under agreements with the Service as far as use of agricultural lands are concerned.

In return for the use of the land the cooperators allow some of the crops to remain standing or furnish the Service with a portion of those raised—sharecropping in other words. Mr. Gresh says that wild turkeys were present in some numbers when the area was acquired. However, with protection and management, the population has increased sufficiently to permit removal of some of the turkeys by live trapping. Timber sales on this area are another source of income and as a result of this operation game habitat is improved. The refuge personnel marks the timber and conducts the timber sales with private lumbermen doing the cutting and removal.



Photo by Frank Ferretti.

Proper land management improves the game supply. Anthony Kastan, Elizabeth, Pa., displaying his and his hunting companion's (Frank Ferretti) limit of grouse.

Although the Service's experience with quail management is limited to areas not exactly comparable to Pennsylvania conditions, Mr. Gresh nevertheless mentioned its program on the Wheeler National Wildlife Refuge in northern Alabama, established in 1938, at which time it was determined that the population was but one bird to each 16 acres. Here again through the cooperative or share-cropping method the habitat was considerably improved, and after three years of management the birds had increased to one bird to 4 acres. During the following two years the population remained at a standstill, indicating that the saturation point had been reached and the increment each year should be utilized by hunting or live trapping. As a result the State of Alabama elected to have controlled hunting, after it was determined that 2,000 quail were surplus and should be removed. The hunt was staged under somewhat adverse conditions. Dry weather meant poor work on the part of dogs. The results were 534 coveys of birds shot into and nearly 1,000 quail shot, including cripples. In the hunt 982 man-hours were consumed which required the hunter to check in and check out. The cost of the permits was $1.00, which covered the cost of conducting the hunt. The average weight of quail was 6 ounces which indicated the excellent condition of the birds.

Although Mr. Gresh expressed himself in detail in outlining this particular demonstration he did so to portray the fact that quail can be increased, and that supervised hunting is a useful tool of game management. In a nutshell, the methods of management and increasing of populations boils down to management of the land with *multiple* land use.

Mr. Gresh also referred to the woodcock, claiming that its management revolves around cover management. The fundamental principle for that cover manipulation points to the retention of the forest cover to immature growth. That means, keep the forest cover from reaching a mature and uniform stage. At the same time forest openings and young regeneration are encouraged. And, of course, it all comes down to a good distribution of singing grounds, nesting grounds and feeding grounds. The management of cover is accompanied to a high degree by sale of cordwood, Christmas trees, and the leasing of areas for blueberry culture, the latter fitting especially into woodcock management. There is in addition some grazing and hay cutting, both of which fit admirably into keeping areas open for singing grounds and other habitat requirements for woodcock. And, the management of the timberdoodle simultaneously benefits white-tailed deer and ruffed grouse.

In addition to citing comparable methods of management, Mr. Gresh also outlined some "mistakes to avoid." In his opinion they are (a) Failure to manage the cover, (b) over-development, i. e., unnecessary roads and trails which rely on the agency handling the area for maintenance. Often, too, fencing is too elaborate and ponds are too expensive for the contribution they make. Large areas are often created especially for resident game which are never managed either to increase the carrying capacity or utilize the surplus. He is of the opinion that the overflow theory on these large refuges is often over-emphasized, and that it is conceivable that much of the game raised within the boundaries of such large areas live their entire lives right there—in fact congregate within the area and contribute little to the adjacent lands. He made it clear, however, that while the foregoing is essentially true of large areas that refuges are after all absolutely essential in a game restoration program, but that they must be managed to produce their full value. Another practice which he cited which might be on the borderline of "mistakes and errors" is that of expending large amounts in development on an area beyond the results achieved for the economy of that immediate area.

Last month we carried President Ross L. Leffler's opening address to the Commission's First Statewide Conference on the Land Management Program. In this article are the expressions of some of the best thinking of our Commonwealth and Federal Agencies on this important subject. Next month we hope to run an interesting article on Forestry and Wildlife Management by Prof. P. F. English, which presents additional ideas.

Dr. Hardy L. Shirley, Director of the Allegheny National Forest Experimental Station, Philadelphia, was the next speaker called upon by President Leffler. Pointing out that management of specific areas of land for game refuges and public hunting grounds has been the cornerstone of the Commission's success he said he believed it was fitting to consider whether acquisition should be stopped or a new goal set now that its original goal of one million acres in game lands is rapidly being attained. In his opinion many factors will influence the decision. On the positive side, for instance, both funds for acquisition and land suitable for the Commission's use will continue to be available. Pennsylvania has between 1½ and 2½ million acres of low quality forest land, abandoned farm land, and brush land that private individuals can ill afford to own. Game is the first crop this land can produce. What other agency, according to Mr. Shirley, is in a better position to acquire and manage such lands during the next few decades? Furthermore he feels that Pennsylvania sportsmen need additional lands for game refuges and public shooting grounds.

But, there is another side to the picture. Ownership and management of a large percentage of Pennsylvania's land carries with it an obligation to be sure that this land is managed in the best overall interests of the public. Some of the lands the Commission has acquired or may acquire may be valuable for picnic areas and recreation other than hunting. Some may be valuable for summer homes; much of it is growing valu-

(Continued on page 26)



Photo by W. L. R. Drake

Some Game Lands provide unique types of recreation, such as those upon which the famous Pymatuning Waterfowl Sanctuary and Museum are located, near Linesville, Crawford County.



Mr. Groundhog carefully observes the weather on February 2.

Notes on the Common Woodchuck

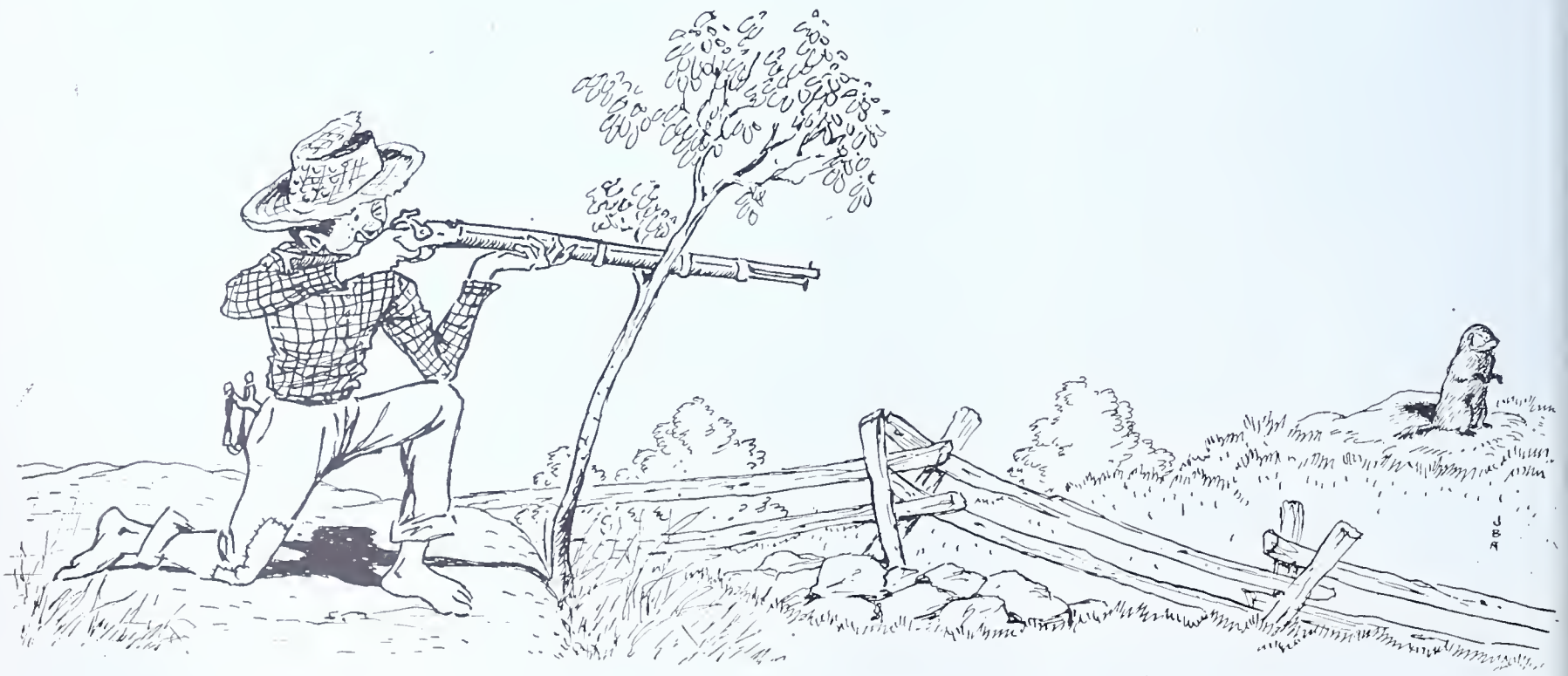
HOW are you going to handle the Marmota monax situation this spring and summer in your fields of alfalfa and clover, among the orderly furrows of beans, peas, beets and lettuce; or perhaps in your smaller victory garden not far from your back door?

Marmota monax, well, that's just the scientific name for the common woodchuck or ground hog to the thousands of people throughout the country who carefully observe the weather on February 2 to learn whether Marmota's shadow will be visible or not.

Woodchucks are one of the largest North American rodents, exceeded in size only by the hoary marmot or whistler of the high ranges of the far northwest, the porcupine and the beaver. A full-grown woodchuck will average ten or twelve pounds and, with retreat cut off, will put up a vicious fight against a dog and inflict considerable damage with his big chisel-like teeth. It is a common occurrence for a surly old male woodchuck to usurp a fox's burrow and put the rightful owner to ignominious flight as he returns from a night's hunting to find his home occupied by an unwelcome guest.

The woodchuck's fur is coarse and has no market value at any time of the year. The commonest color phase is a grizzled reddish-brown; the legs and hind-quarters quite rusty, the feet and tail very dark brown or black. There is a dark area between the eyes, extending down along the top of the muzzle to the nose pad and, above, well up over the "forehead" to the base of the ears. All-black specimens are not uncommon and pure white albinos have several times been recorded.

They are one of the most widely-known American mammals, due to their habit of digging their burrows in farmers' fields, under his stone walls or beneath big weather-beaten stumps at the borders of the woods. Then, too, unlike so many of our rarely seen but abundant animals, woodchucks do their exploring and feeding in the daytime and are commonly observed taking a noonday siesta on some sunny flat rock or wood pile. In summer they are quite active along the borders of country roads just before twilight, foraging for some tidbit before turning in for the night. Haven't you often raided the ice-box just before going to bed? Near Carlisle, Pa., a few summers ago I saw five big 'chucks at intervals along the roadside in the course of a very short drive,



The youthful nimrod was probably bowled over by the elephant-like kick of the ancient muzzle-loader.

By Jacob Bates Abbott

Illustrations by the Author



It is a common occurrence for a surly old male 'chuck to usurp a fox's burrow and put the rightful owner to ignominious flight.

lumbering through the weeds and hedgerows like miniature bears. The strangest place in which I ever saw a ground hog was in a crotch of a slender beech sapling, eighteen feet above the ground. This was in Chester County, Pa., about two o'clock in the afternoon on the farm of the late Frank Foster, amateur naturalist and big game hunter. Mr. Foster was with me and neither of us had ever before heard of a woodchuck climbing a tree. How he ever got his heavy short-legged body up this spindling tree I will never know.

Because they dig holes and pile up mounds of earth in his fields, because they tramp down his wheat and oats and because of the commando raids they make on his young vegetables, woodchucks are regarded by the farmer much as a Jap sniper is by a marine.

For generations country boys have undergone their "baptism of fire" while aiming at some distant 'chuck's head; and in the old days this baptismal fire was plenty potent, for the youthful nimrod was probably bowled over by the elephant-like kick of the ancient muzzle-loader, discharging its load of gravel, marbles and scrap iron. However, woodchuck hunting is good practice for your marksmanship and there is not a little sport connected with it. If you have a rifle 'scope left from the days before priorities and a summer afternoon off from the duties of farm chores or assembly line activities, hie yourself out across sunny fields and along the old rail and stone snake fence. Watch out for a brown earth mound thrown up among the lush green clover or alfalfa stems. When you have found a likely-looking burrow place yourself at some vantage point, a hundred yards or so away: lie down behind a fence, or boulder or blueberry bush and—wait. Sooner or later Mr. Woodchuck will come out his front door and sit up to have a look-see before venturing out for his post prandial stroll. NOW is your chance. Get that tiny grizzled head centered behind the crossed hairs of your telescope lense and squeeze the trigger easily. You'll have a dead 'chuck or a faint cloud of dust where a fat rodent was a split instant before. Of course, any well-managed woodchuck home has a back door. If the main entrance is out in the field, look for the rear exit under the stone wall bordering it or beneath that old pile of cut wood or brush, stacked up against the tumbling stones. This rear outlet and emergency entrance is of vital importance to the woodchuck and many a dog has been fooled, sniffing eagerly at the hole into which he has trailed the ground hog, by having his quarry scamper out the back way, after sitting up on his haunches for a second to grin in derision at his pursuer, now furiously throwing up dirt and gravel from what he imagines is the only entrance to the burrow.

If you do go ground hog hunting with a dog, after he has led you to the hole of an active burrow, cover the ground around it in widening circles until you have found the hidden second entrance. Then stop up this hole, call off your dog; then in an hour or two put him again on the trail. If he holes up the 'chuck this time you've got him—after two or three hours of strenuous digging. Occasionally you can get a running shot at a woodchuck with the help of a dog, provided you are lucky, or if you know the approximate location of the burrow's back door, if, as and when your hound has chased his prey into the front door. For old man woodchuck, as likely as not, will run right through his twisting tunnel and come out at the rear in high, stepping along eight to the bar. Furthermore, the dog has a darned good time.



Grinning in derision at his pursuer, now furiously throwing up dirt and gravel from what he imagines is the only entrance to the burrow.

You yourself can have as much sport 'chuck hunting without a dog and can really get a line on how good you are at close-shooting up to a couple of hundred yards, just about the limit of distance at which a woodchuck's head can be seen over rifle sights. A .22 is the right rifle for them, with either short or long ammunition. Maybe you've got an old Stevens or H. & R. single shot .22. Good sport may be had with these; but for the average shot better results will be obtained with a Remington, Winchester or Marlin repeater. If sport does not enter into your determination to nail up a woodchuck's hide on your barn door, you can of course blast them into eternity with a .410 or 12 gauge shot gun. Although most woodchuck shooting is apt to be out of effective shot gun range. Certainly the .22 is the more sporty weapon to go after them with. Of course if a couple of 'chucks have proved to be damaging pests on part of your land, wage war on them with any calibre weapon at hand. After the war, perhaps, bazookas will be available for this purpose.

When "the frost is on the pumpkin" and the flaming foliage of the hardwoods has been swept away by October gales woodchucks begin their long winter sleep in the warm grass-lined chambers of their burrows. Through the late summer they have stuffed themselves with all the food available, for they store away none for winter's use, and for a week or two before hibernation their movements are lazy and sluggish. Not be-

(Continued on page 29)



The late Dr. B. H. Warren, former State Ornithologist, examining different kinds of eggs, mostly waterfowl and shorebird, destroyed by crows.

Hunting Black Marauders

By Frank Floss

MARAUDER is a name that fits the common crow like a glove. He is a vicious plunderer of our young game birds and animals. His attacks on young chickens, pigeons, ducks, game birds, and rabbits have outlawed him in every section of the country. In fact his taste runs rampant, for he will eat anything from sprouting corn to the most decomposed carrion. I have witnessed him many times feeding on the remains of dead horses and sheep. In my estimation he belongs in the same category with the vultures.

Up in Canada on the duck nesting grounds he steals the eggs and kills the young ducklings. He is responsible for the deaths of thousands of ducks in one nesting season. Through his outlawry he has brought the wrath of both conservationists and sportsman upon himself. In some states he is not considered worthy of hunting with a gun; instead explosives are planted in his roosts at night. This method of control is used only in a few states. It is not applicable to all. In most states he is not that numerous; but you can bank on it that he will be unless something is done to control him. At present his number is large enough to cause more damage to wildlife than all our predatory birds combined. However, he can be controlled by the sportsmen if they take up arms against him NOW. Although the pillages that have made him an outcast of the bird world have been instrumental in inflaming the anger of a few, who hunt him the year round, his sly cunning has kept that small minority from noticeably thinning his ranks. No matter how many they bag every year, he comes back stronger than ever the next year.

Right now it is up to every hunter to help control King Corvus and his band of pirates. With so many other fellows in the Armed Services the crow is taking a bigger and bigger toll of our wildlife. Let's do something about it. Let's gang up on the varmints.

There are numerous ways to hunt crows successfully. To mention a few, there is nest hunting, hunting from a blind with a decoy, or stationing one's self along a flyway. A crow call will help in each method. It is not very hard to master if you listen closely to the different calls and duplicate them with it.

Nest hunting is best from April into June. The nests are usually found about 65 feet from the ground and consist of a course structure of sticks, twigs, grasses, and tree bark. They are rather large and easy to locate, and due to their size can be seen from quite a distance. I always use a pair of field glasses to locate them. The glasses also enable me to see if a crow is on the nest. If so, I sneak up and get a shot at the old lady as she flys off at my approach.

If I locate a nest without a setting crow in it I knock on the tree with a rock to determine if there are young crows in it. If there are, they will, nine times out of ten, either stick their hungry mouths up out of the nest or start squawking for the old crow. At this stage I take out my crow call and add its voice to theirs. This usually brings the parent birds back to the tree in a hurry as they think their young are being harmed. When they come gliding into the tree in a hurry I am prepared and let the first one that comes within range of my gun have it.

The parent birds raise such a commotion that in a few minutes they have all the other crows in the neighborhood circling above the tree. They cast all caution to the wind and try to scare off the intruder who is molesting the nest. I have had as many as twenty circle the nesting tree I was crouched under. Of that number I have dropped up to eight before they gave up and

(Continued on page 29)

Red Foxes and The Bounty

By S. V. Sedlak

AS sportsmen we owe it to ourselves to think intelligently and to act in compliance with sound judgment on any matter that involves the status of a wild animal.

For a number of years we have heard the pleas of the defenders of the red fox family lay stress on certain protective measures that should be given these animals. We have had learned men give their reasons why this should be so; likewise, we have heard from the common fellow—the trappers and the raw fur buyers—all in defense of the red fox. But we might say that what we heard went into one ear and out the other, for the red fox problem still stands as one of the most debated and unsettled questions with which we are confronted.

Primarily, we viewed the red fox as being a marauder of small game. We judged it mostly from persuasive imagination because we had no precise evidence to support our contention that it was unworthy of protection by law. But we were never fully satisfied with just branding it as a predator. Our interpretations ear-marked it with some convictions of guilt, and these charges were powerful enough to tag it with a bounty as an incentive to have it tracked down and killed.

Now the question is whether our judgment was correct and whether the payment of a reward has been or can be of any material value. Current opinion is that the red fox population has increased and this has created another move to spend more money to control these animals. However, the fact that there is an increase in the numbers of these animals is no sure criterion that there is going to be a more serious depletion in our small game supply.

It has been intimated that the good trappers are in the service of Uncle Sam, so we naturally come to the conclusion that they are regarded as necessary. With the absence of experienced fox trappers there is bound to come an increase in the fox population. Replacement of the bounty at this time can hardly be considered as correct procedure simply because replacement of skilled trappers is out of the question. As for incentive, the value of the red fox pelt is up again, and that is encouragement enough for anyone who desires to hunt for the remuneration it affords. Only three years ago, when the Predator Control Study Committee had been activated as a fact-finding organization, the agreement was reached that when red fox fur value goes up the payment of bounty should be abolished, and when the pelt value goes down the bounty reward should be resorted to again if deemed necessary. Obviously, we are working in reverse.

To clarify the issue let us assume a neutral position and examine the facts from the most feasible angles of approach. There are 600,000 of us licensed, and an untold number of unlicensed farmers, and we all engage in the pursuit of wild animals. This lot of humanity is made up of the rich and the poor, the big game hunters and the small game seekers, the trappers, the fox hunters and the fox chasers included. It sums up simply to this. Each group has a particular liking for a particular wildlife sport. Ownership of wild animals is vested in the name of the Commonwealth, consequently we take for granted that justice is to be meted out as fairly as possible to all concerned. Then why should influential John Doe come up with a chip on his shoulder ready to fight his less fortunate fellowmen simply because red foxes have increased in numbers here or there? What has John Doe got in the way of substantial, concrete evidence to prove that the red fox is a criminal and should be disposed of at the rate of $4.00 per head at any time during the course of a year? It is true that foxes do kill some rabbits as well as game birds, but what about the raccoons, minks, wildcats, weasels, skunks and the winged predators, to say nothing of the thousands of gone-wild house cats and stray dogs?

We've got to take these into consideration in the discussion of the predator problem because it would be unfair to accuse one group of predatory animals as criminals subject to "control" based on a bounty system, while a dozen other game killing predators go practically unnoticed. The agility of the wildcat needs no introduction here; we're all pretty well versed in the knowledge that the cat is a first rate game killer. Still, we're willing to let it come back to play its part in the scheme of nature. Only a few years ago we raised a pandemonium over the abundance of skunks in relation to their destructiveness to small game, but the fact that skunks are an important factor in insect control didn't affect us in the least apparently.

Weasels and minks are more subtle hunters and killers of small game than red foxes, but we're undisturbed. In the air we have the eagle-eyed hawks and owls, swift on wing with surefire accuracy when it comes to clutching feathered game or swooping down on the cotton-tailed bunny, but we're not alarmed. Stray house cats are apt to be

(Continued on page 30)



Photo courtesy The Tribune Newspapers, Meadville.

Group of Meadville district fox hunters with part of their late 1943-44 bag of reds and grays.

A Pennsylvanian Hunts

By Lt. Clair R. Stine



Lieutenant and Mrs. Clair R. Stine with his first 6-pointer, killed near Bandera, Texas.

THE season on Mourning or turtle doves started on September 1 and lasted for six weeks. Texas was divided into two zones, a northern zone and a southern zone. The reason for the division into zones is the climatic conditions which affect the nesting season of the birds. These seasons did not run concurrently and as Bexar County (pronounced Bear) was the center point it afforded twelve weeks of fine bird hunting. The most established way of hunting them is to find out the route they most commonly use in flight and shoot at them as they fly by. These flights take place early in the morning and late in the afternoon or early evening.

During the hot part of the day they take a siesta in the mesquite and thick brush and are very hard to find. The most interesting hunt I had was in company with another fellow York Countian, Sergeant David Allen, who is stationed at Brooks Field, Texas. This particular hunt took place on a Sunday afternoon in early September. We were hunting at a water hole at an ideally located spot in the middle of the hills. The doves would come in from all different angles, sideways, headon, straightaway and quartering and for a few hours the Sergeant and I had all kinds of sport. Neither of us are exceptionally good shots but at the end of the afternoon's hunt we had bagged sixteen fine doves which made a meal fit for a king, not to mention the saving of precious meat coupons. I got out on quite a few occasions, especially after work in the evenings, and it was very seldom that I failed to have a few hours' sport with the "coobirds" as I so appropriately nicknamed them.

I managed to go fox squirrel hunting with a friend who had a squirrel dog and it sure was a treat to hear the dog bark treed and then go to the tree and find Mr. Bushytail lying crouched on a limb or hidden in the fork of the tree. A well placed shot from our 22's would usually bring him out of there in a hurry. During the months of September, October and the first half of November whenever I had spare time, it was either Mr. squirrel or the coy Miss dove who occupied my devoted attention. Sunday hunting, by the way, is permissible in Texas and this sure is a break for we men in the armed forces.

Deer and turkey season started on Tuesday November 16 and I could hardly wait for the deer season to begin as I had been unable to go at all last fall. The usual method of hunting deer in Texas is for a number of men to lease the hunting rights on a ranch for the entire season or for the ranchmen to charge a certain daily fee for those who can go only when opportunity offers. This is called day hunting and is the method that I employed.

There are a few places in Texas where the sportsman may enjoy free hunting; however, this is not usually found in localities where deer are numerous. Still hunting and stalking are the most popular methods of hunting them. There are no concentrated drives such as we are familiar with in Pennsylvania. I did not get any shooting until Friday afternoon November 26.

The officers at our Post are given an afternoon off a week for recreational purposes and Friday is my afternoon. On this particular afternoon I was hunting with my shotgun with 00 buckshot as I had seen a fine bunch of turkeys on this ranch on the previous Friday and wanted to be prepared for anything. It was a windy, rainy afternoon and I was hunting against the wind. I had only been out about forty-five minutes and was about to hunt down the side of a ravine running through the end of a pasture. I had just about reached the head of the ravine when I looked in the brush and spied a fine buck, frozen like a statue, staring at me. I slowly brought the gun to my shoulder, aimed for the neck, and squeezed the trigger. The deer went down like a log, took a few somersaults in the ravine, and in a few moments it was all over. He was a six-pointer and weighed around one hundred pounds dressed.

I was elated at this success so on the following Friday afternoon I decided to hunt in the same vicinity. It was another dark, windy afternoon but it was not raining. As I crossed the ravine, intending to go around the side and get to the head of it, I spied a flock of turkeys going up the ravine. I picked out a large gobbler and quickly fired but missed him and the flock immediately scattered, and flew up along the side of a mountain.

I continued hunting and slowly worked my way towards the neighborhood where the birds had flown. As I neared the vicinity I heard the faint call of a turkey, which gradually grew louder as I crawled and tiptoed my way up the hill. The sounds were coming closer and as the wind was blowing strong from the turkey towards me, I crawled on my hands and knees until I could see a fairly open place where I felt sure the bird would have to cross. I thought it was hours but in less than a minute it emerged from behind the bushes and started across the opening. I spied the long beard in front of his breast and immediately shot for his head. Fortunately one shot caught him in the head and I had bagged a beautiful fifteen pound gobbler not more than one hundred yards from where I had killed the deer on the previous Friday. Purely by coincidence the shootings both occurred at quarter past three. It was one of the proudest moments of my life, as it was the first turkey that I ever killed.

As the season progressed I made the acquaintance of Captain Robert Snow, cougar hunter and State game warden, of Kerrville, Texas, who took me along deer hunting on the afternoon of December 17. I was successful in killing a fine six-point buck weighing aroúnd one hundred and twenty-five pounds dressed. This concluding my season limit of deer I turned my attention to turkey hunting again and on Sunday morning December 19, hunting from a turkey blind on a ranch near Center Point, I bagged a fine young gobbler weighing around ten pounds.

A very funny incident took place during the waning hours of the last day of the season, Friday afternoon December 31, which I am going to relate against my better-half's protests. I took my wife along on the hunt and told her to take the 22 rifle as she might spy a turkey. She did not heed my advice but nevertheless accompanied me to the blind. After sitting in it about an hour and a half I told her that I was going to walk a short distance up the

In the Lone Star State

Editor's Note: Once again we hear from another Keystone service man, this time from way down "deep in the heart of Texas." The author, Lt. Clair R. Stine, former Secretary of the York County Federation of Sportsmen's Clubs, now of the Reception Center at Fort Sam Houston in San Antonio, vividly describes hunting conditions as he found them in the Southwest. But, let the author speak for himself.

mountain side as I had heard some turkeys calling in that direction. I asked her to remain in the blind and watch. I was gone for about a half hour without seeing anything when I returned to the blind. As I approached, I saw that she was quite excited and holding up two fingers. With a sinking heart I walked up and asked her what was wrong. She told me that about ten minutes after I had left two young gobblers had walked to within about fifteen yards of the blind, scratching and hunting for food in the leaves. Needless to say we were both chagrined as these were the only turkeys seen by our party all afternoon. To add grain to the salt a previous hunter had left 200 rounds of 22's in the blind, which I found later. I feel confident that in any future hunts my wife will listen to my sage advice that anything can and usually does happen on a hunting trip.

I also had my first taste of duck hunting this fall and I am really sold on it. Mitchell Lake, about ten miles from San Antonio, is open to day hunting and as I had heard that there were quite a few ducks on it, I decided to have a fling. I was only able to hit six (I would blush if you asked me how many I shot at), but it sure is great sport to sit in a blind on a cold wintry morning, watch the ducks flying by at express train speed, and occasionally see them fall out of the air after the report of the gun.

I had wanted to go bobwhite hunting all season but opportunity never presented itself until the last afternoon of the season, Sunday, January 16, when a boy from Louisiana and I went to a farm



The Lieutenant and a 15 lb. wild turkey bagged near Bandera, Texas.



Lieutenant Stine, Attorney Russell S. Stine, his brother, and Richard Stine, his nephew, holding "Sport" after a successful rabbit hunt in York County, Pa., in 1943.

near Floresville. We had no dog but there were plenty of birds which of course were found in the hardest and toughest places imaginable to shoot at. After chasing up the coveys, the singles would dart out from under your feet and give you heart palpitation. After shooting off tree limbs, filling the zone with plenty of lead, scaring all the animals and children in the neighborhood with our cannonading, getting very tired legs and working up a sizeable appetite, the sun started setting in the west so we took inventory and found that we had bagged nine fine "brown bombers" and one lonely cottontail rabbit. As the last rays of sun vanished and darkness appeared over the landscape I realized that one of the strangest, the most successful and most varied hunting seasons of my life had just passed into history.

In conclusion I wish to thank the State of Texas, William J. Tucker, Executive Secretary of the Game, Fish and Oyster Commission, Captain Robert Snow, the ranchmen and the farmers for their untiring efforts in making it the success it was, not only for me but for the rest of the boys who were unable to hunt in their own home coverts. Here's a hope and a prayer that when another fall comés around and the bobwhites start to call, br'er rabbit starts hopping around in the frosty leaves, the ducks are on the pond, Mr. Greytail starts gathering nuts for the winter season, the wary old buck snorts his defiance as he waves his whitetail and dashes away in the brush, the stately and majestic wild turkey gobbles as he calls to his flock, and the proud and beautiful cock bird cackles in the gathering twilight of evening, ten million boys will be hunting in their own favorite cover from the pine forests of Maine to the fields of sunny California and from the skyscraper trees of Washington to the orange groves of Florida. As for me, all I ask for is to again hunt the noble hills and dales of the good old Keystone State, which William Penn many years ago so appropriately and fittingly called "Penn's Woods."



Woodchuck burrows furnish many a home and haven of security for Br'er Rabbit.

Winter Feeding—Is It Really Necessary?

By Helen Merritts

PART 2—*Continued from last month*

LAST month we discussed winter feeding as it pertains to game birds and learned, through several applied scientific experiments, that it is not the lack of food alone which causes high winter mortalities among them, but rather a lack of food for extended periods coupled with severe weather.

This month we shall discuss winter feeding as it pertains to mammals, omitting the scientific experiments used for the sake of brevity and simplicity of understanding.

Because of its popularity the cottontail was first introduced to the Commission's Climactometer and his reaction to it definitely placed him on the list of the non-hardy species. On the face of the findings it would seem that he stood little chance of surviving a severe winter. However, his habit of hunting the protection of groundhog holes or other shelter in cold blustery weather is the factor that spells winter survival for him.

And right here let's toss a coin in the ring for old Mr. Woodchuck and continue his protection, for it is mainly upon the burrows of the whistlepig that Bre'r Rabbit depends for security from the weather and from enemies. Studies have shown that woodchuck dens provide dry, windless shelters where the winter temperature range never falls below 25° or rises above 40°. With such protection and that provided by brushpiles and dense patches of vegetation, the rabbit manages to get along throughout the cold months even when food is scarce.

And, when speaking of that good samaritan the 'chuck, let us not forget that Mr. Groundhog furnishes some darn good sport, for a more cunning or wary critter you'll never find.

Three fur-bearers, the muskrat, skunk, and opossum, were also given a workout in the "weather machine," and it was found that the muskrat's ability to survive when exposed to poor weather conditions is little better than that of the cottontail and similarly this doesn't mean that severe winter weather causes great losses. It is doubtful that the muskrat ever spends extended periods exposed to severe weather and lack of food since he frequently stores food in his home in a reed house or stream bank where he is protected from the elements.

The common skunk ranks next to the muskrat in total value of annual fur sales, so it was selected as the second fur-bearer for experimentation. Ah! but the perfume kitty proved to be as tough as his scent is strong. He underwent the rigors of the man-made elements and though he dropped to approximately 40 per cent of his initial weight and his body temperature dropped more than 30° below normal, yet he managed to make a complete recovery by forced feeding. In other words, Mr. Skunk proved that he is among the hardiest of the animals tested and he will hold his end up in severe weather and food shortages notwithstanding. Anyhow we needn't worry much about him for he frequently dens up for periods as long as 90 days, thus escaping the worst of the winter.

The last fur-bearer experimented with was the 'possum. The test showed that he can withstand a full week or possibly more of severe fasting without suffering seriously. However, the 'possum, like the skunk, shows a tendency to hole up in some warm, windfree den and so escape the severe winter.

The starvation of deer in winter has recently drawn much attention. Numerous investigations have been made, practically all of which have shown that most of the deer have died from lack of *proper* food rather than starvation.

Only one animal, a native whitetail about ten months old, born in the wild but captive-reared, was sacrificed for this study. The animal was in excellent condition, weighing 75.5 pounds when the test started, but only 54 pounds fourteen days later when the animal died. During that interim it received no food at any time although water was available in the form of rain or snow and the temperature ranged from 11° to 58°. The results of an experiment conducted in New York State are of interest. A buck, fed on balsam died at 78 percent of its initial weight after 28 days while on a meadow hay and balsam diet, a buck and a doe each perished on the 41st day at 69 percent and 76 percent of their respective initial weights.

From the above presented information it is obvious that deer are a very hardy species, succumbing to starvation or malnutrition only after weeks of unfavorable conditions, particularly in the late winter when days are warm but the nights cold.

A lack of high quality winter food for deer is known to affect the reproductive rate of the whitetail. Field studies conducted during recent years by Richard Gerstell have shown that reduced fawn crops, the majority of which are females, are produced on over-browsed ranges where the animals suffer from malnutrition.

Another series of short tests were run to determine the ability of the animals which had survived winter starvation to breed and produce young the following spring. The first of these was with two groups of ringnecks, one, the experimentals, which was fasted and fed alternately from March 10 to April 10 when constant feeding was resumed, and the other, the controls, which had access to scratch grain constantly. After this period, the egg production of both groups was checked. The laying period of the experimentals started approximately two weeks later than that of the controls, or about the same time as pheasants in the wild, but it reached the point of maximum production about the same date. The important fact is, however, that during the entire laying season the fasted birds produced a grand total of 632 eggs, an average of 42.1 per hen, while the controls averaged only 34.3 per hen with a total of 515 in all. The experimentals produced more eggs per day, per hen as well as a larger total of eggs, than did the unfasted specimens.

These eggs from both experimentals and controls were collected and incubated. Of the experimental eggs 72.6 percent were fertile in comparison with 72.0 percent of those from the controls, showing that there

(Continued on page 31)

Some of My Experiences With Hawks

By M. E. Sherman

Field Division Supervisor
Division "E"

BEFORE launching upon any discourse on the controversial subject of hawks, please permit me to inform my readers that there shall be no intention on my part to even attempt to convey any scientific knowledge or technical data regarding the subject. If I should incidentally mention, use or refer to anything appearing scientific or technical, it will be pure accident or perhaps may be used for brevity or understanding.

For many years the behavior of the birds of prey has fascinated me. I have watched them strike their victims with all the daring and skill their ferocious natures and superbly equipped bodies could muster. The graceful maneuvering and sagacity of these winged creatures is magnificent to behold. I have stood in awe as I observed them in flight during their migrating periods. Only those witnessing this beautiful phenomena of nature can appreciate its grandeur. The greatest thrills in my hunting experiences have been in capturing them, dead or alive. They respond to decoy with all the ferocity and natural elegance of movement that one may ever hope to witness in observing the wild things. When captured alive, their marvelously efficient talons and beaks are used with all effectual skill and dexterity to defend themselves.

During my twenty-five years as a game protector for Pennsylvania, I have found myself, more or less, constantly between two fires of viewpoint. There are those who perhaps honestly believe that the only good hawk is a dead hawk, and there are others who believe that these beautiful birds of prey belong in the scheme of Nature and that there is no need to control them through regulated or promiscuous killing. My inherent love for wildlife and the beauty it symbolizes in the scheme of all Creation, forces me to say that they should not be totally annihilated. In fact my many years of practical experience in protecting our wildlife convinces me that it must be regulated with the care, good judgment and commonsense acquired only from long and thorough experience in dealing with wild creatures. Also, there must be technical and scientific applications to this commonsense management plan. Biased and prejudicial opinion on any phase of wildlife management may grossly upset the balance to the point of great harm, not only to one species but many species. For illustration: Our deer problem and our bounty problem.

Through the years I have shot some hawks and I have spared some hawks. I have tried to approach the problem with understanding and a point of view, bearing in mind that the whole scheme of Nature is one of checks and balances. My desire has been constantly directed toward this end, rather than to obtain scientific information which in the end would not have provided me with the intimate knowledge of the behavior of the hawks. I have, however, checked my findings with such technical data as have been recorded, and with experts having technical training on any particular species of hawk. Also, my experiences with a number of the Nature Lovers have been exceedingly helpful and interesting. Their viewpoint on the design of Nature is one of beauty, which combines the esthetic and economic. All of Creation is a panorama of grandeur to them, which is suggestive and inspirational to those who may differ in viewpoint.

My responsibilities and my obligations are to all the people, although the majority of them happens to be those common folks who toil in the fields, in the mines or at machines, or at other sweating tasks to obtain their daily bread. But to all I must guide my energy, with the hope, if possible, of successfully balancing the whole program of wildlife management. Therefore, I will appreciate your patient tolerance and consideration while reading this little narrative.



The little Sparrow Hawk is one of our most beneficial birds of prey.

Usually I began my watches for the migrating flights in early September, making observations in the proper places and at the proper time during my activity in the field. These flights may be detected at any time during the day, generally between the hours of 9:00 A.M. and 4:00 P.M. The day should be rather balmy, preferably accompanied by a steady or strong northwesternly wind, or one of heavy direct northernly winds; but it should not be damp or wet. Hawks must take advantage of dry air, because their feathers are not impervious to dampness as are those of waterfowl. Early in September the rather harmless broad-winged hawk starts his flight southward. This hawk does not personify the striking ferocity of certain other kinds which are known as killer hawks. For the sake of hawk range parlance, we classified the several kinds of hawks in one of two categories—good hawks and bad hawks. In order that you may understand the classification as used for our purpose, the bad hawks included the goshawk, Cooper's sharp-shinned and quite frequently the red-tailed hawks; the good hawks included the broad-winged, red-shouldered, rough-legged hawk, sparrow hawk and occasionally the marsh hawk, which is classified good and bad depending on the locality wherein he chooses to live for a while. Occasionally golden and bald eagles crossed the range but were never harmed; likewise the beautiful duck hawk passed through but was exceedingly uncommon. He was generally guarded, because of his extreme scarcity, not because he lacked ferocity or viciousness. This beautiful hawk personifies all that is hawk and is ferocious and a deadly killer. We loved his striking beauty, wildness, courage and perfection just as courage and per-

(Continued on page 31)

★ ★ ★ CURRENT TOPICS ★ ★ ★



Wilbur M. Cramer

KNOW THEM BETTER

To Wilbur goes the honor of having the longest service with the Commission of any of its present employes. He completed his 29th year on Oct. 29, 1943. So, among other things we extend our sincere congratulations.

Mr. Cramer's career with the department has not only been long, but interesting, and his initiative and ability, but especially his versatility, have enabled him to do an excellent job no matter what the assignment.

He entered the service of the Commission on October 30, 1914 as a stenographer to Dr. Joseph Kalbfus, first Secretary of the Commission, and to Seth Gordon, present administrative head.

In 1917 he was appointed a clerk in the Bounty Division, and later transferred to the executive office where he remained until he enlisted in the U. S. Army on February 28, 1918. He served in the Quartermaster Corps Detachment, Camp Meade, Maryland, until he was discharged in 1919 as a Sergeant, with a 2nd Lieutenant's Commission in the Q. M. C. Reserve. Subsequently he enlisted in the 8th Infantry, Pennsylvania National Guard, where he served as a private, Sergeant Major, and 2nd Lieutenant, later transferring to the 104th Cavalry as a 1st Lieutenant and Personnel Adjutant.

Upon his return to the Commission following World War I he served respectively as clerk, assistant chief clerk, chief clerk, and office manager. Then in 1926 he was transferred to southeastern Pennsylvania as Field Division Supervisor of Division "A". When the Training School was established in 1932 he served first as Assistant Superintendent, then as Superintendent. Since 1936, when the school was not in operation, he has been supervising the game trapping program.

Wilbur is a member of two fraternal organizations, a committeeman on outdoor activities of the Boy Scouts, a member of the American Legion, the American Wildlife Institute, and the National Wildlife Society.

OUTDOOR WRITERS MEET

The first Conservation Conference to be held by the Outdoor Writers Association (Columbus, Ohio, Feb. 21, 22 and 23), was a success in point of attendance and in interest displayed. Close to 300 were present, including members of OWAA, sportsmen and conservation officials, and a large group of Canadians. Topics of major importance discussed included—"The Place of the Outdoor Writer in Present and Post-War Conservation;" "Inter-relations in the Conservation Problem;" and "Education, the Answer to Post-War Conservation."

Resolutions adopted were few but straight and to the point. Among them were recommendations for closer contact between State game agencies and local outdoor writers; the revision of OPA regulations covering the sale of ammunition as a means of eliminating black market operations; an outdoor recreational program for boys and girls; the establishment of a permanent refuge in Louisiana to protect America's rarest living bird, the ivory-billed woodpecker; that certain forests, lakes, and other public recreational areas be dedicated as living memorials to those who have made the supreme sacrifice or have been recognized for outstanding acts of heroism; that legislation be enacted repealing the current 10% excise tax on fishing tackle when national necessity for such taxation ceases to exist, and impose instead a similar 10% excise tax patterned after the Pittman-Robertson tax on sporting arms and ammunition, the revenue to be used to improve fishing; and the negotiation of an international treaty between the United States and Canada governing the preservation and development of the Great Lakes Fisheries.

Mr. Louis B. Seltzer, Editor of the *Cleveland Press*, was presented "An Award for Service" in recognition of that paper's early appreciation of the value of outdoor recreational news in the daily press.

Mr. Earl Roman, outdoor editor of the *Miami Herald*, was the recipient of the 1943 Baxter Award, an annual award made through the generosity of William Baxter of Wilmington, Delaware, to the outdoor writer who made a contribution to the conservation of wildlife over and beyond the call of duty. It was tendered for the dramatic and unusual manner in which he cleared the hundreds of miles of south Florida canals of decaying vegetation, thus making possible a return of game fishes and game fishing in them.

Mr. Glenn L. Martin, President of the Martin Aircraft Company, Baltimore, was named the outstanding conservationist of 1943 and winner of the Sports Afield Trophy by six nationally known outdoor writers.

Mr. J. Hammond Brown of the *Baltimore News-Post* was reelected President of the Association for his fourth consecutive term; Mr. Dick White of the *Montreal Gazette* was reelected First Vice-President; and Mr. Arnold Stewart of the *Wilmington, Delaware News-Journal*, was named Second Vice-President.



W. C. Shaffer

KNOW THEM BETTER

One of the most misunderstood phases of game conservation is that of enforcing the law, and like in similar branches of Federal, State or Civic government, the fellow who is responsible gets little thanks. The administration of this far-reaching program happens, in the Commission, to fall to the lot of W. C. Shaffer, Chief of the Division of Law Enforcement who, despite its multiple complexities, has intelligently and impartially discharged his duties as far as it has been humanly possibly to do so.

Having always been interested in hunting, fishing and the outdoors in general, Mr. Shaffer, or plain "Bill" if you will, began his career with the Commission as a Deputy Game Protector in Allegheny County in 1928, was placed on the regular payroll as a Traveling Auditor in 1931, and from then on served in such positions as Traveling Supervisor, Assistant to the Chief of the Bureau of Protection, Special Investigator, Deputy Secretary, finally ending up in his present job back in January 1936. He also was Acting Executive Secretary for two months.

Mr. Shaffer was one of the men who organized the Training School and served as Superintendent and Instructor until Mr. Wilbur M. Cramer relieved him of the responsibility so he could devote his time to other matters. He is a specialized instructor in criminal investigations, including laboratory technique, a Past President of the Conservation Law Enforcement Chiefs Association, and a member of several fraternal organizations.

A Cambria Countian by birth, he had his schooling in Allegheny County, including Pittsburgh Academy and the University of Pittsburgh. Following his education he was employed as an auditor with the Travelers Insurance Company, later resigning to purchase a real estate and insurance business of his own in Wilkinsburg, which he operated from 1924 to 1930.

LEAVE THE SERVICE

The Commission announces the resignations of three of its field officers: Game Protector George W. Koehler, Lycoming County; Game Protector William W. Britton, Franklin County; and Game Protector Fuller H. Coffin, Erie County.

In point of service Mr. Koehler is the oldest of the three, having started as a Game Refuge Keeper in May, 1929 on the old Trexler area, a leased refuge in Carbon County. In 1930, he was assigned to Refuge No. 8 (later he was placed in charge of a number of refuges in that area known as Group 11) along the Loyalsock Creek in Lycoming County, a section that became near and dear to him throughout the years; so much so that he recently purchased a summer resort along the main highway from Montoursville to Laporte, where he hopes to round out the rest of his days. Mr. Koehler not only was a splendid officer and game land manager; he was an artisan in the creation of large scale and miniature educational exhibits. His resignation was a surprise to many of his friends, coming as it did so closely upon the heels of his return to duty following an Honorable Discharge from the armed services as the result of an accident in November, 1943. Good luck, George!

Next oldest in point of service, Mr. Britton, "Bill" as he is affectionately known to his comrades and a host of sportsmen friends, began his career with the Commission in October, 1932, as a District Game Protector, Franklin County, serving in that capacity until his resignation. A former school teacher, he was intensely interested in the law enforcement program of the Commission and on numerous occasions was assigned to special investigation work in which he demonstrated unusual ability. He was also interested in the educational phase of the program and won for the Commission many friends through his fine public relations work. We understand he is affiliating with the Federal Government in wildlife conservation work, so we know that his interest in the game will never wane. Good luck "Bill" and let's hear from you now and then.

Although youngest in point of service Mr. Coffin proved during his term of activity, which began in August, 1937, that his was more than a passing interest in the Commission's program. A graduate of the Training School, he was appointed a Game Land Manager in 1938 in charge of Group F-1, comprising a number of primary refuges in Erie and Crawford Counties. He did a fine job in that capacity until his resignation became effective in March this year. Mr. Coffin was a loyal, conscientious worker, and if he applies himself in his new undertakings, whatever they happen to be, as much as he did while with the department he will succeed. Luck to you Mr. Coffin.

OLD FURS NEEDED

The War Emergency Board of the Fur Industry, 128 W. 31st Street, New York, 1, New York, has just announced that it was possible, through the efforts of about 3000 collecting agencies, to deliver to the U. S. Maritime Commission nearly 50,000 fur-lined vests for the use of our Merchant Seamen and those of our Allies. The Board is urgently in need of more old fur garments, however. They should be sent to the Fur Vest Project, 135 W. 26th Street, New York City, along with the name of the donor.

Figures compiled by the Conservation Department of New York reveal that deer license sales last fall, both buck and antlerless, totaled more than 216,850. This is in contrast to the last pre-war year of 1941 when 199,349 special deer licenses were issued. The department said that while a large part of the increase could be attributed to New York's first widespread controlled antlerless deer season thousands of so-called new hunters took to the field to supplement war-time shortages of meat supplies and because it afforded an outdoor recreation opportunity for thousands under heavy strain working in war industries. During the deer hunting season last fall in the Adirondacks, Catskills, Southern Tier and Western counties, hunters reported bagging 14,184 bucks, an increase of about 500 over the previous year. In addition the experimental antlerless deer season in 25 statewide counties produced 8,184 animals.

LETTERS TO THE EDITOR

Mr. J. J. Moore, 4346 Christian Street, Philadelphia, asks the questions listed below and our answers follow.

"During the last deer season, game wardens from Clarion County got magistrates to arrest and fine gunners who, taking a rest, had laid their rifles against parked cars. The rifles had the safety on. Did the game warden have the right to do so? Is there any law against resting a gun against a car?

"Is there any game law in Pennsylvania forbidding a person from picking dead game from the roads (game killed by cars or trucks) and taking it home to eat?

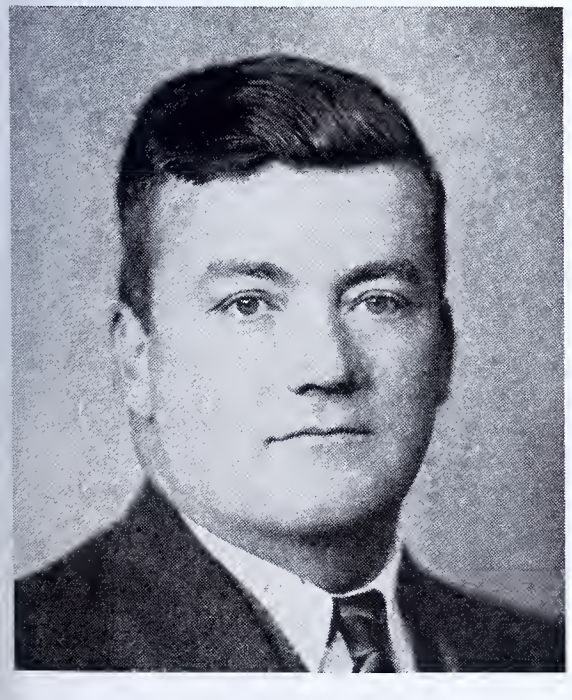
"May I accept a deer legally killed by a friend and take it home? No money or presents given for deer. May I use my own tag or the tag of the friend? Must he come in the same car with the deer?"

Answers:—

There is a provision in the Game Law under which the possession of a loaded rifle or shotgun, *in* or *on* any vehicle standing upon or being driven upon any public highway, is punishable by a penalty. When a rifle is placed in such a position that it leans upon a parked automobile the person responsible is, under the law, liable to a fine.

Any game killed by vehicles on highways must be disposed of by an official representative of the Game Commission to a charitable institution if it is fit for food. If not edible it must be disposed of by the officer and not by an individual.

There is no objection to accepting a portion of deer offered you by a friend, provided the deer has been legally killed in season. To transport a portion of deer, the package or container should be marked by a card or other marker showing the name and address of the person killing the deer, his hunting license number and if the meat is not exposed a notation as to the character of the contents of the package so that the same may be determined by an outside inspection.



Fuller H. Coffin



William W. Britton



George W. Koehler



Officers and Directors of the Dormont-Mt. Lebanon Sportsmen's Club. Seated, left to right: Alvar C. Purdy, Director; B. G. Ruppel, Director and County Delegate; J. L. Carney, President; and Eddie Boeklen, Director. Standing, left to right: Herb Ruehrshneck, Director; Peter Krass, Director and County Organizer; C. B. Phillis, Director, and E. V. Birk, visitor from the Clairton Sportsmen's Association.

Dormont—Mt. Lebanon Club Has Big Program

The Dormont-Mt. Lebanon Sportsmen's Club was organized in 1938, under the Non-Profit Corporation Act of 1933 to succeed the unincorporated Dormont-Mt. Lebanon Hunting and Fishing Association organized in the year 1934 then consisting of six members, namely: Charles B. Phillis, J. Earl Guthrie, Harry E. Anderson, James W. Bridges, Edward A. Schopp and Harold L. Cloud. The association increased in membership and importance until its anticipated future activities suggested the wisdom of incorporation. The purposes of the non-profit corporation are substantially the same as those of the association and are as follows:

"To promote, aid and encourage non-partisan policies and legislation, looking to the conservation of our natural resources of game, fish, forests and streams;"

"To instruct in the lawful use of firearms, maintain shooting ranges, provide social activities, promote good fellowship and a higher standard of ethics among sportsmen."

The association was and the club now is a member of the Allegheny County Sportsmen's League and hence affiliated with the Pennsylvania Federation of Sportsmen's Clubs; also a member of the National Riflemen's Association.

The club facilities consist of 25 acres of land under lease, partly woodland and well adapted for shooting ranges, which consist of small bore, high power, running deer, rising bear, trap and pistol. The buildings consist of club house, storage building and trap houses.

The usual social features are fish and game dinners, basket picnics, corn roasts, turkey shoots, etc.

During the year 1943, on account of the War, the club had to forego the usual sportsmen's activities, except one small bore shoot, and divert its recreation largely to Victory Gardening. About 35 members and their families engaged in this activity. Six or seven acres of the club premises were plowed (not the shooting ranges however) and subdivided into lots 50 x 100 feet each and devoted to cultivation with fairly good results. This activity certainly did go far towards promoting good fellowship among the members and their families, including, as well, those not actively engaged. The bright sunshine and recreation was highly beneficial providing you did not keep your shirt off too long. It was inspiring to see the gardeners, and their families, on the club grounds Saturday afternoons and Sundays with their basket lunches.

During January and February, 1943 and 1944, the association engaged in a rabbit trapping campaign, the setting and collecting of the traps being done by the Boy Scouts, who received through the club the compensation per rabbit paid by the Game Commission. Many of the members actively participated with members of other clubs, in fox hunts in the vicinity of the club premises.

With the sportsmens' activities thus curtailed during 1943, its social activities were confined principally to basket picnics and corn roasts, at which the entertainment committee staged sport events for young and old with prizes for the successful contestants.

The internal management is conducted by a board of fifteen directors and the principal officers at present are: John L. Carney, Pres.; William E. Knechtel, Secretary and Treasurer; and Bernard G. Ruppel, Delegate to the Allegheny County League. The Chairman of the Garden Committee for 1944 has been appointed and the members are looking forward to another season of recreational activity and enjoyment.



Photo by Delbert Batcheler.

Group of successful beaver trappers having their pelts tagged by District Game Protector Miles Reeder, Lock Haven.

THE GREAT CLOCK

The clock of life is wound but once,
And no man has the power
To tell just when the hand will stop,
At late or early hour.

Now is the only time you own;
Live, love, toil with a will,
Plan no faith in tomorrow for
The clock may then be still.

Wear today a cheerful face
In everything you do.
The sunshine that you radiate
Will shine right back to you.

Speak today a word of hope
To someone in distress;
When you lift another's load
You make your burdens less.

Do today a gracious deed
And do it with a smile;
It's little daily acts like these
That make your life worth while.



HATS OFF TO MISTER RABBIT

What species of game are the most popular? Where is the most sporting ammunition used? These are questions which have always been subjects for argument wherever sportsmen meet.

The Remington Arms Company, in an extensive post-war planning survey, has gathered a great deal of data which is believed to be the nearest approach to the answers to these questions yet expounded.

The information accumulated reveals that the lowly rabbit, "Molly Cottontail" to most of us, is far and away the most popular species of small game, insofar as the consumption of shotgun shells is concerned. The figures show that, in normal times, 88 per cent of the shotgun shells produced are fired in the field. The remaining 12 per cent is shot at the traps or in the sport of skeet. Of the 88 per cent shot in the field, the rabbit attracts 29.6 per cent of the composite sportsman's fire, more than double that of his nearest competitor, the squirrel. The percentages compiled follow:

Rabbit	29.6%
Squirrel	14
Quail	13.9
Ducks & Geese	10.5
Pheasant	9.5
Doves	7
Other Game	3.5
	88.0%
Trap and Skeet	12.0
TOTAL	100.0%

The survey also shows that 60 per cent of rim fire cartridges are used in the field. Match shooting consumes 5.1 per cent, gallery shooting 7.7 per cent and informal shooting, such as practice and plinking, 27.2 per cent.

The center fire consumption figures present a different picture. Pistol and revolver shooters, surprisingly, surpass the riflemen in the big-bore field. Center fire rifle cartridges are shot as follows:

At big game 32.5 per cent; at predators and small game 5.2 per cent; miscellaneous 1.8 per cent. This makes a total of 39.5 per cent. The larger proportion goes in pistols and revolvers in the following percentages:

Law enforcement 45.5 per cent; competitive target shooting 11.1 per cent and miscellaneous 3.9 per cent.



Photo by Delbert Batcheler.

Members of the Harrisburg Hunters and Anglers Sportsmen's Association releasing their dogs at a recent Jack Rabbit chase. Br'er Jack is hightailing it for parts unknown.

Here and There . . .

There is nothing new about "streamlining." The Osprey (fish hawk) advocated the idea years ago. He always carries his captured fish head-first in the direction of flight to avoid wind resistance.

Although oftentimes pictured as such, the *Golden* Eagle is NOT the symbol of American liberty! The *Bald* Eagle has that distinction. The Bald Eagle is NOT really bald. The white feathering on the neck and head makes him appear so, when observed from a distance. During the first year of their lives the young of the Bald Eagle grow to be larger than either of the parents. In their fourth year they assume the pure white head and tail of the adult. The wing-spread is often as much as 12 inches wider than that of the older birds.

Michigan is to keep a 46,000 acre remnant of the "Great Uncut." Preservation of the state's largest remaining tract of primitive wilderness, the biggest virgin hardwood forest left in the entire United States, was assured when the special session of the Legislature, on the eve of adjournment in February, approved House Bill 26, appropriating $1,000,000 for the purchase of the Porcupine mountains in the western end of the Upper Peninsula.

The Minnesota Conservation Department has estimated the number of wild deer in that state at 700,000. This total is so high that Minnesota officials were afraid that many would starve to death; however, the abnormally open winter and lack of snow minimized the loss.



Photo courtesy Sun Telegraph, Pittsburgh.

North Park, Pittsburgh, was the scene of a big rabbit drive during latter February, and many a cottontail was caught in the 200 foot nets used by cooperating sportsmen comprising members of clubs affiliated with the Allegheny County Sportsmen's League. Above is John Notz, of the Lincoln Place Rod and Gun Club, holding the bag while Jimmy Ekl drops one in.



Photo Allentown Morning Call.

Formulating progressive conservation plans for the coming year was the main item of business following the recent election of officers for the Federation of Sportsmen's Clubs in Lehigh County. Seated in the front row, left, is Charles H. Nehf, Lehigh County Fish and Game Protective Association, secretary; Donald Baumer, Unami Fish and Game Protective Association, Emmaus, president; and Merton J. Golden, division game supervisor who was the main speaker of the meeting.

Pictured in the back row are: George T. Guignet, Cedar Creek Fish and Game Protective Association, Cetronia, first vice president; Tilghman S. Cooper, Saucon Rod and Gun Club, Coopersburg, delegate to the Division and State conventions; Henry J. Kriebel, Macungie Rod and Gun Club, treasurer; Henry Klausfelter, Saucon Club, retiring president. A constitutional provision does not permit a president in the federation to succeed himself.

Another subject which merited attention was that the Lehigh Federation with 5,937 affiliated sportsmen was the largest registered unit in the Pennsylvania Federation of Sportsmen's recent convention in Harrisburg. The 19 member clubs are aiming to retain the honor this year, according to President Baumer, in spite of the fact that Lehigh ranks about 30th of the 67 counties in population.

Notes from the Field . . .

"I have been investigating the fresh operations of wood cutters and do not find many signs of deer. The winter has been very good for them to get food, but I have found four dead fawns already. I am of the opinion that they were born too late to attain growth sufficient to stand the cold."—Game Protector Ernest E. Hunsinger, Group E-4.

"After a slow start due to heavy snow and ice the beaver trappers made a good catch. Many dams yielded four to five beavers. Some very nice 40 to 50 pounders were taken. We had many more trappers in this vicinity than last year. Some were from Cambria, Clarion and Forest Counties."—Game Protector Clyde W. Decker, Group E-7.

"There were several more trappers on the streams during the beaver season than there were last year. Ideal weather and road conditions gave them access to several streams that otherwise would not have been trapped. The kill in this section is going to run rather high, compared to last year. Some trappers have displayed very large pelts, while others were not so fortunate. In one instance a trapper caught a beaver not as large as a good-sized muskrat; however, it was killed by the trap and had to count as number one."—Game Protector Edward R. Richards, Group E-8.

"On February 23 John Allen, noted fruit grower of Warren, donated 45 bushels of apples for game feed. Game Protector Norris and I distributed them on game lands No. 29 and vicinity. The deer sure made good use of them.

"Despite the over-abundance of foxes in Warren County there are several places on game lands where the snowshoe rabbit is steadily increasing. Most of these are in the near vicinity of rock piles and laurel patches."—Game Protector George H. Burdick, Group F-4.



Crude barrel bear trap found in Clinton County last hunting season. Note the spikes and honey in the keg. Persons caught setting such cruel and illegal devices will be punished to the full extent of the law.

A number of field officers reported seeing red-winged blackbirds, robins, red-shouldered hawks, and other familiar birds in February.

"I never saw so many beaver trappers as there were this year. There were twelve cars parked at one beaver dam at one time and I counted 98 traps set in this dam. Five beavers were taken from this dam by trappers who hailed from Chester, Philadelphia, Nescopeck, Sweet Valley and Lopez. Some pelts brought as high as $60.00."—Game Protector Chester S. Siegel, Group C-6.

"We had a few warm days last week of

PENN'S WOODS TO BE RECREATED

No more appropriate celebration of the tercentenary of the birth of William Penn could be conceived than the development of a fifteen acre grove at Bowman's Hill State Wild Flower Preserve which will eventually contain all species of trees and shrubs indigenous to Pennsylvania. This grove is to be known as Penn's Woods and will be skillfully and naturally developed under the able guidance of Dr. Edgar T. Wherry, eminent botanist of the Univerity of Pennsylvania.

A special committee has been created to advise and assist Dr. Wherry composed of Dr. R. C. Magill, Superintendent of Washington Crossing Park, Mrs. Lynwood R. Holmes, Mrs. A. B. Ross and Mrs. C. C. Zantzinger who are so largely responsible for the unique wild flower preserve at Bowman's Hill. Other members are: A. F. Hough, U. S. Forest Service, Philadelphia, J. W. Adams, Morris Arboretum, E. F. Brouse, District Forester, Samuel N. Baxter, Horticulturist, Fairmount Park Commission, Herbert Bowen, Washington Crossing Park, R. Lynn Emerick, Chief, Bureau of Forests, Harrisburg, Mrs. Leon Hutton, Washington Crossing Park Commission, H. Gleason Mattoon, Secretary, Pennsylvania Forestry Association, Dr. E. E. Wildman, former Director, Science Education, Philadelphia Public Schools, Mrs. Humbert B. Powell (ex-officio) President of the Conservation Council of Pennsylvania and W. Wilson Heinitsch, Director of the Preserve.

The planting of the more than 100 species of native trees and shrubs will be started this year. They shall be known as "Tribute Trees" and will be given by individuals, patriotic societies, women's and garden clubs, conservationists and others in memory of heroes of U. S. wars, noted scientists or others for whom a living memorial is most fitting.

Gifts are to be made in the form of money rather than plants although the donor may suggest the species he wishes planted. Such gifts shall cover the cost of planting, care and marking. The committee has recommended a minimum of $5.00 for a shrub, $10.00 for a small tree and $25.00 for a large tree. Each tree and shrub will be carefully marked and catalogued, with the name of donor and of the person to whom the tribute is dedicated.—H. Gleason Mattoon, Secretary, Pennsylvania Forestry Association.

February that must have started a few of the ducks in migration flight. I saw five pintails and one blue-winged teal one day. Also have been seeing American and Red-breasted Mergansers and Goldeneye ducks for some time now. The kill of red foxes has been very heavy. There probably has never been another winter in history that so many foxes have been killed in this section. It has been due to three factors—the abundance of foxes, the high prices received for fox pelts, and the purchase of dogs for hunting foxes for sport."—Game Protector Raymond M. Sickles, Group F-3.

"From observations and all reports received to date it is believed the catch of beavers in this section has been smaller than in most past seasons. Heavy ice-covered streams and ponds made trapping operations rather difficult. The usual number of trappers were on hand, but no violations were observed."—Game Protector Howard F. Hoffman, Group B-4.

"There are not over one-third as many rabbits on auxiliary refuge No. 29 this year as there were last year. Nine gray and three red foxes were trapped off of the area this season, also quite a few raccoons, skunks, and opossums. We also killed a good many hawks, mostly Cooper's. On the last snow we had there were few fox tracks, but there were skunk tracks everywhere."—Game Protector E. J. Turner, Group A-2.

"One deer killed by an auto on the Superhighway during February—a button buck."—Game Protector Wm. J. Matthews, Group G-2.

"A ruffed grouse was observed strutting and displaying around another grouse on the Caledonia Pike on the morning of February 26. The time of day was 7:20 A.M. and the birds were seen in the lights of the State truck driven by E. R. Richards."—Game Land Technician W. C. Ryder, Division "E".



Photo courtesy Miss Rose Muller.
Dogwood in full bloom.

"On February 25, while traveling along Route 502 in Spring Brook Township, I observed five bluebirds flitting along an open field which may indicate that Spring is just around the corner. I did not think so much of this but the following is a new one to me.

"I received a call from a lady in Clarks Summit who was quite excited and I don't blame her. She reported seeing a Purple Squirrel in her yard and she fed it some peanuts and claims that two or three other friends saw the same thing at that time. She told me that the squirrel was all purple and that the tail was beautiful. Since purple is worn very freely at this time she is of the opinion that the squirrel is modeling that color for this spring. I asked her what brand she was taking and she informed me that the only thing she was drinking was hard water from the faucet in her home. I informed her that I had heard of pink elephants, etc. but never heard of purple squirrels and advised her that I would try and trap it some day in the future and put it on display to clear up any doubt that people might have regarding the story. It looks to me that due to the scarcity of rabbits people are resorting to Easter Squirrels instead of Easter Bunnies."—Game Protector, Francis E. Jenkins, B-5.



Photo courtesy Phila. Evening Bulletin.

More than 100 sportsmen from Montgomery and Delaware Counties joined forces during early April to trap rabbits from Victory Gardens, when the Montgomery County Federation of Sportsmen's Clubs and the Delaware County Field and Stream Association conducted a drive to remove the animals from areas in which they have been causing damage.

During the second half of February, I trapped one red fox and two gray foxes on State Game Lands No. 51. I found traces of rabbit in the stomaches of the red fox and one gray fox. The stomach of the other gray fox was empty."—Game Protector H. D. Carroll, Group G-4.

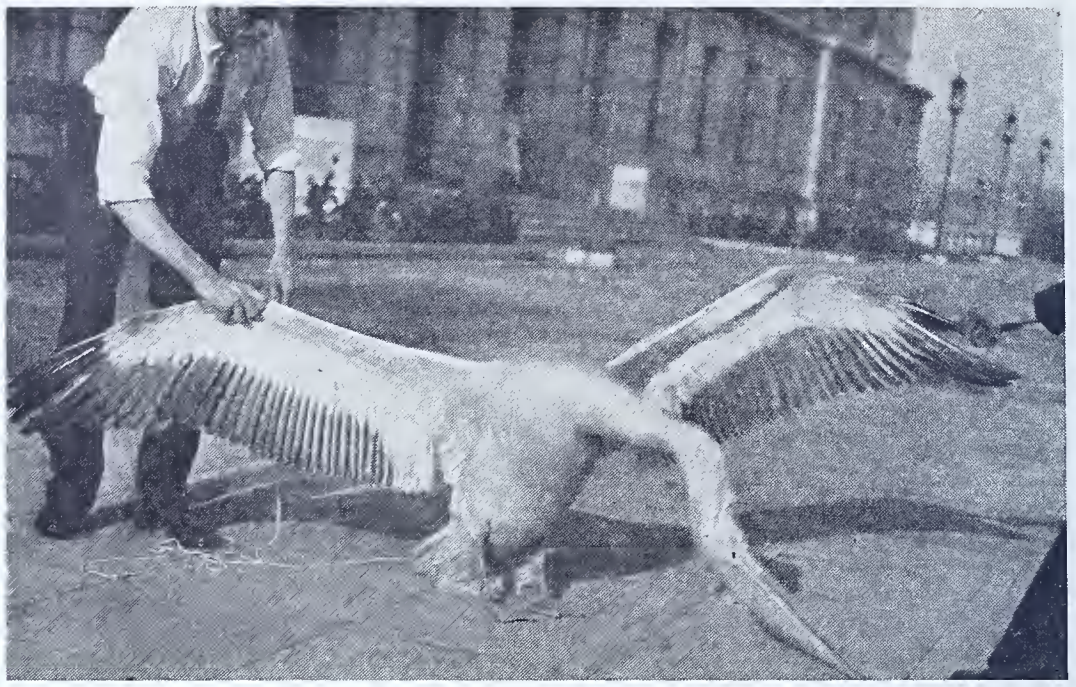
"Two brothers of Clarion, Pa., William and Henry Fagley, have taken 58 foxes during the past winter. These men trapped only in their spare time.

"While releasing ringneck pheasants on February 22, a Cooper's hawk came from a hill several hundred yards away, knocked a hen bird out of the air and killed it within plain sight of Fish Warden Charles Wensel and myself."—Game Protector Duane E. Lettie, District F-11.

Frank V. Stutzman, Twin Lakes, Pike County vouches for this one. The Stutzman family once lived on a Perry County farm. One day Frank's father took a walk over the property and enroute spied a grey squirrel on a log. He had no gun so he couldn't shoot it, but as he approached the log the animal ducked inside. Taking off his pants

(Continued on page 22)





Left, a white Pelican found dead along Wills Creek in Bedford County by William H. Shaffer of Hyndman who took the photo. No doubt the bird was blown north from Florida like one which plopped down in the Susquehanna River (shown above) on October 5, 1926 from sheer exhaustion. It arrived on the heels of several severe storms which occurrence along the eastern seaboard at that time. Your editor fed it in captivity for some time then turned it over to the Philadelphia Zoo. The inside of its lower mandible was polluted with internal parasites which clung tenaciously to the tissue.

LOOKING OVER THE NEWS

Along with all the clippings and stories of the big ones that did or did not get away during the last deer season, there crops up that old, old story of the tame deer that didn't stay tame. Anyway, there was a 14 pt. buck that used to visit an orchard near Beaumont. The deer became so tame it would let the owner of the orchard and his children pet and stroke its back. So they invited their friends and relatives to see this marvel of nature. While one of the visitors was petting the buck, some movement scared it and away it went leaving one woman with a broken arm, cuts and abrasions on the face and broken glasses. If by repeating this story once more we are able to save one of our readers from injury at the feet of some tame (?) deer we think our column's work well done.

While we are on the subject of accidents caused by deer, here is one as related by the *Hanover Sun*: "Robert A. Thompson, McKnightstown, formerly of Gettysburg, brought down a deer and himself with one shot. The Adams county sportsman was hunting on Big Flat and had climbed a tree to wait for his quarry. "When a buck approached, Thompson drew a bead and fired. The deer fell dead. Thompson fell too, tumbling 18 feet from the limb on which he had perched to the ground. The unlucky successful hunter was a patient in the Annie M. Warner hospital, Gettysburg, suffering from a fractured left shoulder and several broken ribs."

This tree climbing is risky business, but then a fellow isn't safe from deer even if he is sitting in a chair says the *Sunbury Daily Item*, which printed the following:

"Carrying a camp chair along with him on a deer drive, Justice Coleman of Beavertown was pretty well tuckered out near the end of the day. He seated himself in the chair on the watch for the next drive, but misjudging the direction of the drive, he placed his chair facing the wrong direction. A huge buck came along and sent him sprawling with a butt. Mr. Coleman was rescued by his companions and assisted to camp. The buck got away and Justice Coleman was not hurt."

Well it takes all kinds of incidents to make a deer season. Here is one from the *Montrose Independent* about being "taken for a ride." Sounds like a combination of the gangster days and a wild west movie:

"Earl Browne, of Williams Pond, had an exciting experience while hunting deer. He shot a buck, the animal falling to the ground apparently fatally wounded. He ran to the creature, laying aside his rifle, and getting astride of its neck prepared to cut its throat. As he pressed the knife into the animal it sprang up, the young hunter on its back, and dashed down the hill at a breath-taking rate of speed. The hunter clung to the horns for about 100 feet, when he was thrown or fell off.

"George Olmstead, Montrose's Street Commissioner, who was with the party, shot the deer after it had run about a quarter of a mile.

"Mr. Browne was very much excited over his experience. A few days previous he got lost in the woods. 'It has been a lively hunting season for me,' he remarked."

All of which reminds me of the one I heard being passed around up in McKean County. It seems a young hunter took a shot at a nice big buck deer and downed him deader than a doornail. As this was his first experience he rushed over and not knowing just where to start, lay down his rifle, filled out his big game tag, and tied it on the deer's horn. Much to our Nimrod's surprise, the 'dead' deer suddenly got up and started to make tracks with Nimrod kicking up quite a snow cloud in pursuit. To make the story short, the deer ran out to another hunter who put the finishing touch on it. Just as the second hunter was about to take possession of his prize, Nimrod No. 1 comes tearing up and claims it. Hunter No. 2 wants to know how come. So our novice tells his story and offers his tag still on the antler as proof. The old time hunter stared awhile at the tag and the flustered youngster and exclaims "OKay young feller, if you can catch 'em on the run and tag 'em it's yours" and walks away.

And now it's time to walk away from this one. If the Ed. prints this we'll try another next month.

The following highlights were disclosed at the recent annual meeting of the Huntingdon County Game, Fish and Forestry Association, based on its 1943 activities which ended Feb. 29, 1944:

Distribution of 22,650 seedling trees and shrubs to club members, bringing the total to 95,550 since the inception of its forestry program six years ago; release of 103 ringneck pheasants from its game bird rearing unit; purchase and release of 69 rabbits; and stocking of 25,600 legal and 4,000 fingerling trout, together with 28,300 warm water species including 16,850 bass.

The association's membership for the past year totalled 533, which was greater than the previous year and the third highest enrollment since 1935-36. It now boasts 45 members in the armed services.

IT DROPPETH GENTLY

Many people wonder why a charge of shot, or a bullet, fired straight up in the air does not return to earth with a heavy impact. A shotgun charge, fired vertically, will return without much greater force than that of a heavy rainfall, according to Remington Arms Company. Air resistance is a powerful factor in retarding the speed of freely falling substances. If it were not for this resistance, raindrops would strike with great force.

In the thin air of high altitudes, the speed of a bullet's return to earth is accelerated, but when it reaches the denser atmosphere nearer the earth, the air resistance checks the speed of its drop to a considerable extent.

Echoes of the Big Game Hunt

I was pleased to read the good and timely article of Mr. Floss in the December 1943 issue of GAME NEWS titled "Mr. Average Hunter." His admonition is given in a kindly spirit. From long observation I would like to add to his council, plead for more respect for the hi-power rifle, sane honest methods of hunting, less noise and indiscriminate shooting, less hit or miss, run or stay method, more calm careful sportsmanship, and less kill by day and retrieve by night.

Years ago when there was no restriction on when or what we killed a soft snow covered the woodland. A trio of squirrel hunters were stalking a deer about a half mile from our old home. As a boy of 18 I got permission from father to take down his smooth bore, mostly barrel, and go get a deer. A quarter mile out I ascended a hemlock and waited, but my patience failed me too soon and it was only a few minutes after I descended that the coveted deer passed under the tree of my choice.

The next morning the deer was shot in midstream, in the Susquehanna River near Goose Island. This was my first taste of deer hunting and I am not entirely immune from an annual attack of that peculiar fever.

Since deer have been protected I have been out on the mountains an average of three days per season, and strange it was for eleven seasons I did not get a shot at a legal deer, except does with fawns at their side; these I passed up.

I have been out many seasons and came back with rifle barrel as clean as a silver spoon, never having fired a shot, and I have shot a nice bunch of deer, some standing and a number on the move. All were "clean kills"—one in the neck, the other ones not far from the heart. Mr. Floss may place me in the "average" category but not in the hit or miss, stay or run bunch.

Last season I heard fourteen shots in rapid succession in one small spot in the woods. Another day I met a "novice" hunter on a public road and asked what luck. His reply was "Nothing, but I saw something move up there in that old brush orchard and took a crack at it, but guess I did not hit anything." I prompted him by informing him that there were at least ten hunters in that twenty acre brush orchard.

On one occasion a group of city hunters whose language I could not understand were shooting with much hilarity and upon approaching found it was all about killing a number of downy woodpeckers. Another observation, this at lunch time, when a dozen drivers, mostly beginners, emerged from the woods and promptly seated themselves on logs and stumps, and began to exhibit the mechanism and shells of their guns. I remarked, "Boys you better postpone your gun exhibit till you are each alone."

The youth who applies for air flight service attends many classes and lectures, and is accompanied many times in flight prior to receiving a license, while in sportsmanship his ability and disposition are not questioned nor investigated when handed a license and a hi-power gun.

Would it not be wise if, at the opening of each game season, all youth starting to hunt be called together in county units to participate in a conference where competent Game Protectors or others would frankly and amicably discuss the essential factors of safety in handling a gun, sportsmanship, and a humane feeling for wildlife?—D. H. Watts, Kerrmoor, Pa.



Ernest L. Hare, of Lewisberry, with nice trophy bagged Nov. 15, 1943 in Tioga County.

SUPER DOG

I'm not much for bragging about the superqualities of my bird dogs, but occasionally one of them will exhibit a degree of "bird sense" that is almost unbelievable. As part of my research activities for the Game Commission, I collect large numbers of fox stomachs and analyze the contents to determine the feeding habits of this animal. It is customary for me to preserve these stomachs in a formaldehyde solution until a quantity of them have been collected, and then they are opened and the contents dried in preparation for analysis.

One day last week I was engrossed in the task of opening these stomachs, while Old Blackie, my bird dog, lay asleep at my feet. His soft snoring continued without pause while several stomachs, containing rabbits, mice, squirrels, muskrats, and other mammals were opened; but, as I poured the contents of the next stomach upon the blotting paper, he scrambled to his feet and "froze" into a beautiful point, with his eyes fastened upon the material from the last stomach. A quick examination confirmed my suspicions. Sure enough, there were the remains of a bobwhite quail.

I have no doubt that my Blackie (like several thousand other Pennsylvania setters and pointers) is the best bird dog in the State.

(If you think this stinks, you should have smelled what came out of the fox stomach.)

Roger M. Latham

THINGS YOU MAY NOT KNOW

The first double-action revolver to be produced in this country was developed by Joseph F. Rider. He traded his patents to Remington Arms Company, Inc., for 400 acres of land in the state of Iowa—and 12 braces of revolvers. Remington, however, has not manufactured handguns in many years.

The mountain goat is not a GOAT! He is an antelope. Like the so-called prong-horn antelope, he is a misnomer. The animal we call "prong-horn antelope" is really a goat. And the animal we call "mountain goat" is really an antelope. So "What's in a Name?" The hump-backed, long-white-haired animal which inhabits America's most rugged mountains has, as his nearest relative, the chamois of the Alps.

The jackal is called the "lion's provider" and this nickname is a proper one. The lion, hearing the jackal on trail, frequently follows the pack of these scavengers, waits for the kill, and then moves in to eat his fill. When his hunger is satiated, he steps aside and allows the pack to eat the "crumbs from the table."

Roast Bobcat Served by Sportsmen's Club

Latest to join the cavalcade of additions to America's meat supply—close on the heels of the muskrat, 'possum, woodchuck, raccoon and others—is the bobcat. According to the Michigan Department of Conservation, roast bobcat was the piece de resistance of a dinner held in connection with a recent sportsmen's club meeting in that State. It was reported to be "good eating."



Lee Hiester, Strausstown, with three woodchucks killed near that town during August last year with his Kentucky muzzle-loader. In the Strausstown-Shartlesville section of Berks County there is an organization known as the Blue Mountain Muzzle Loaders Association. Both flintlock and percussion cap rifles are used in their matches.



Game Protector Elmer Alexander, Belleville, setting a snare for foxes; also some of the foxes he snared during the first week of February.

FIELD NOTES

(Continued from page 19)

Mr. Stutzman ran to the log and pulled them over the open end and tied both legs together. As the end of the log wasn't open he had the animal imprisoned. A bit of hammering around on the log and sure enough out popped Mr. Squirrel, and a brother, into the pants legs. Bundling up his prize catch Mr. Stutzman sneaked home the back way, following fence rows and brush patches wherever possible, pantless but happy. His son Frank tells me that his dad gave him the bushytails and that he kept them in a cage for quite some time, then released them.

"Another great aid to propagation of game would be new and more stringent dog laws. Most of the farmers in Erie County have two to five dogs, which are left to forage for themselves except for the small pan of milk they get at milking time."—Game Protector F. H. Coffin, Group F-1.

"I believe that dogs running this time of the year take as much or more game as that taken by predators. Dog tracks are everywhere on the game lands and a very small percentage of the dogs running are after foxes. Control measures are a problem because it is very difficult to catch strange dogs, or to get close enough to them to see if they have collars on."—Game Protector Elmer D. Simpson, Group F-2.

"The catch of beavers throughout the entire county was exceptionally heavy, with approximately 85 animals having been taken. Most pelts show them to be in the 'pink' of condition. The largest reported was a 65¾ pounder."—Game Protector Paul L. Failor, Group B-2.

"I covered some good deer sections inside the refuge and at no point were they present in numbers; instead they were scattered all over the woods, and there were plenty of deer tracks. The food has not been eaten enough by the deer to show where.

"I made a poor hitch with a pole trap and a great horned owl flew away with it. But I found him on the ground in the woods some distance away."—Game Protector Ralph H. Ewing, Group F-5.

When you are finished with your GAME NEWS don't throw it away. Pass it on to a neighbor, friend in the Service or contribute it to Waste Paper Salvage Program. Paper is vital to the War Effort.

"During the first half of February I trapped one red and one gray fox and two mongrel dogs that had been chasing deer in Refuge 51A. I also trapped one red fox near Refuge 51B. Rain, sleet and snow on the mountain made trapping very difficult."—Game Protector H. D. Carroll, Group G-4.

"Received word of wild dogs in vicinity of Rimersburg chasing game. On Sunday February 6 Deputy M. George and myself patrolled in the section where these dogs were and shot one old female and 9 pups. About a year ago this same old dog had a litter of 9 pups. The pups were killed, but the old dog got away after having killed about 150 young chickens for a farmer."—Game Protector Levi H. Whippo, F-13.

"In the Strausstown-Shartlesville section of Berks County there is an organization known as the Blue Mountain Muzzle Loaders Association comprised of some 50 members mostly from Berks County, with a few from Maryland and Delaware. Shoots are held semi-monthly during the summer and fall for prizes, and it is remarkable to see the accuracy some of their old guns possess.

Both flintlock and percussion cap rifles are used in these matches. Some of them are 125 years old, and many were made by gunsmiths of early days, such as George Schlak, Pottsville; David Boyer, Orwigsburg; Leman and Drepper, Lancaster; John Derr, Oley; and Schell from Tennessee.

The weights of the rifles run from 7½ to 12 pounds for the Kentucky rifles, to 35 pounds for the target rifles. Barrel lengths vary from 36 to 48 inches and run all the way up to .60 caliber in bore."—Game Protector E. J. Turner, A-2.

"Several seasons ago I was hunting turkeys with a friend by the name of Harold Saurers. We hunted four consecutive days without success. Knowing there was a flock of turkeys in the vicinity we decided to add two hunters so we would have a better chance of running into the flock. After brushing hard the fifth day for four hours without any luck we found dead a thirteen pound gobbler. The body was still very warm and was peppered with No. 2 shot. The most unusual thing to my mind is the fact that we did not see or hear any other gunners in those four and a half days of hunting; also we did not hear any shooting. If you consider this story unusual enough to print you are welcome to it."—Chas. F. Humphrey, Philipsburg, Pa. . . . Note: Probably what happened was that the bird was shot some distance away, set its wings and coasted to fall dead near where you were hunting. Even the sound of the shot might not have, because of some circumstance or another, carried to you. In my opinion the unusual part of your story is that you were lucky enough to run across the bird at all—Ed.

"On February 27, 1944, North Park, Allegheny County, was the scene of the first rabbit drive, using State-owned nets, ever held in western Pennsylvania. George B. Kelly, director, and W. R. Bishop, Custodian, granted permission to use the area. The drive was supervised by Mr. Wilbur Cramer from the Harrisburg office of the Game Commission, assisted by Field Division Supervisor Rollin Heffelfinger, and Game Protectors Ralph A. Liphart and Wm. Matthews. Jack Carey, President of the Allegheny County Sportsmen's League. Sixteen sportsmen's clubs participated, as follows: Wilkinsburg, Crowfoot, Millvale, Springdale, Richland, Bakerstown, Hazelwood, North Side, Sharpshill, North Boroughs, Carnegie, Bethel Twp., Lincoln Dist., Perrysville, Warrendale and Scott. Over 165 persons helped in the drive.

"Bob Notz, of Lincoln Place, Homestead Park, caught the first rabbit in the net on the first drive—from then on 42 additional rabbits were taken. At the close of the drive, the rabbits were distributed equally to members of the various sportsmen's clubs. This was the most enjoyable afternoon, by voice of the entire crowd, ever conducted by the sportsmen in the county. 'YOUNG, medium and OLD all turned to boyhood days for the afternoon. This included eighty-three year old Hon. John M. Phillips, Judge D. M. Miller of Shaler Twp., and many other "notables."

"Sportsmen killed 34 foxes during the month. One kill made by the Bridgeville Sportsmen's Association was an old grey with four pups about to be born.

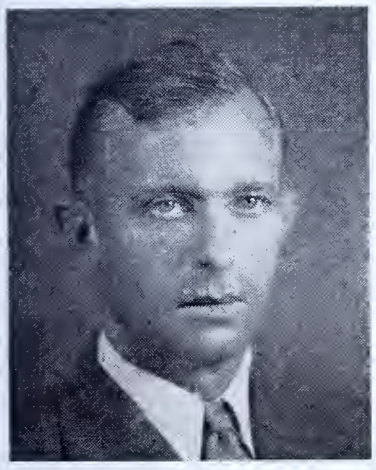
"W. R. Ruppert, who operated in North Park during the trapping season under special Permit, trapped 7 grey foxes, 3 red foxes, 11 'possums, 4 skunks, 1 weasel, 99 muskrats, 1 Cooper's Hawk, 1 house cat, and 3 raccoons."—Game Protector Ralph A. Liphart, District G-2.

(Continued on page 29)



Here is L. L. Leggett of Ransomville, N. Y., with a 180 lb., 26-pointer bagged in McKean County on December 1st last year. The rack had a 28-inch spread. We are indebted to Mr. C. L. Pratt of Erie, for the photo.

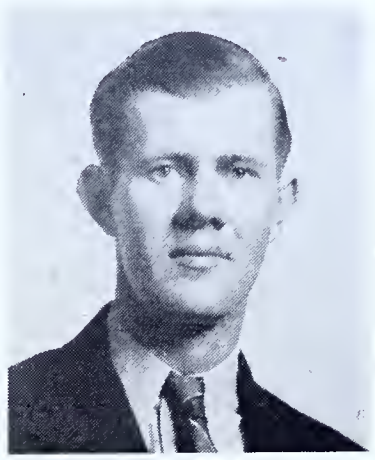
WITH THOSE IN THE SERVICE



Harold E. Russell



Duane E. Lettie



Chester S. Siegel



William A. Hodge

Above is another group of Pennsylvania Game Protectors who recently answered the call to the Colors. They are, left to right: Harold E. Russell, R. D. 1, Blain, Perry County; Duane E. Lettie, Clarion, Clarion County; Chester S. Siegel, Benton, Sullivan County; and William A. Hodge, Punxsutawney, Jefferson County. Others to recently enter the Service are listed below, and it goes without saying that we wish all of them the best of luck in the world and a safe return when their new job is over.

"Sorry that I have not written sooner but we are so busy here that there is not much time for letter writing. We have been having six classes daily and then have night classes about three times each week. Then after each class we generally get one or two sheets of questions that must be answered before class the following day. The reason for all of this work is that they are giving us a three month course in twenty-eight days.

"We had some shooting with the 50 cal. and 30 cal. machine gun at stationary targets the first part of the week and trap and skeet shooting yesterday and today. I didn't do bad so far in this branch of training.

"I took first place by four bulls with the 50 cal. and first place with the 30 cal. by two bulls and then today I even surprised myself by breaking forty-seven out of a possible fifty clay birds.

"I had a letter from Dr. Kilgus and he told men all about those fox hunts they have near Brockway and the School. He sure did describe one of the hunts to perfection, telling where the fox was started, where he ran, how long the hounds trailed him, and how he got away. After reading the letter I just felt like going A.W.O.L. and heading back to Pennsylvania for a real good fox hunt.

"How are the boys doing with the rabbit trapping? I suppose the lack of snow will decrease the catch this year as I know how hard it is to catch them without snow.

"Will close by wishing you and the rest of the boys all of the luck in the world and hope that you can keep the wheels rolling until we get back. As ever."—"Mike" Grabany.

Evidence of the fact that the sportsmen's broadcast as sponsored jointly by the Allegheny County Sportsmen's League and the Fort Pitt Brewery Company over WJAS is reaching far and wide in creating a lot of interest is clearly shown in the following excerpt from a recent letter of Edward Carroll, Electrician's Mate, Second Class, Ketchikan, Alaska:

"The salmon will start running pretty soon. As soon as they start I am going trolling, but I would rather go fishing in a little creek in Pennsylvania and catch a 6 inch trout. Gee, won't it be swell if the Game Commission makes all those lakes—105 of them; that sure is a lot."

"Last week both the January and February issues of the GAME NEWS arrived. I think the January cover is very well done. The past week we have had several light snows. I have traveled through some of the farming country. The fields are enclosed with hedges or stone fences. Very little cover for game. So far I have seen one rabbit and one quail in the wild.

"I'm feeling fine, getting enough to eat, and like the set-up and location a lot. I have visited several towns and cities, the largest being Liverpool. Give my regards to the rest of the force.—Cpl. Louis A. Mostoller."

"Just received my February GAME NEWS. All up to date now. Boy do I enjoy reading them. I enjoyed Mr. Leffler's New Year's Greeting in the January issue so much that I passed it around to several good old Pennsylvanians here with me so they could enjoy it also. We look forward to receiving them each month, and hope nothing will stop their arrival. I also look forward to Mr. Conklin's encouraging cartoons."—Cpl. Clinton Ganster.

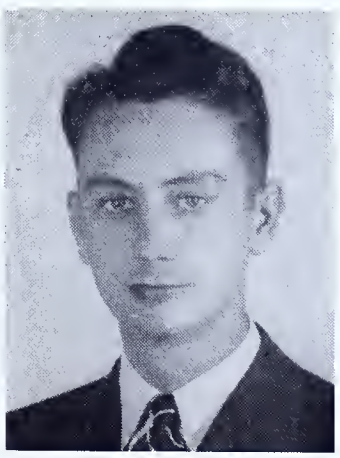
Other Commission employees to enter the Service during the past few weeks include, left to right: Delbert Batcheler, Publications Assistant, Division of Public Information; Game Protectors John P. Eicholtz, York County; Edwin W. Flexer, Montgomery County; and John I. Hendricks, Schuylkill County. They, too, have our best wishes, and hope for a safe and speedy return.



Delbert Batcheler



John P. Eicholtz



Edwin W. Flexer



John I. Hendricks



A couple of nice ones bagged by members of the Lone Pine Five. Left to right, standing, Alex Sweigert and his 7-point, Seymour Aughenbaugh, Leander Aughenbaugh with a 9-point. Seated, Cloyd Rich, Jr., and Roy Drongold, all of Shermansdale, except Mr. Sweigert, who hails from Lewistown.

A SAD TALE

Rastus had a little dog
Who didn't have a tail
Now listen and I'll tell you why
It's a very sad, sad tale.

Now Rastus with his dog and gun
A mighty hunter he,
Would tramp all day, it was such fun
To chase the little bunny.

But Rastus got real tired so
He whistled for his dog
Said they'd take a little nap
Upon a hollow log.

Cottontail in hollow log
Near scared to death was he
Hiding from the little dog
As fierce as he could be.

Everything was quiet so
He tho't he'd take a peep
Couldn't hear no barking dog
Just a boy and dog asleep.

Rastus waked up from his nap
Saw Bunny sitting there
He grabbed his gun, the hammer cocked
He tho't it was a bear.

He took quick aim; the gun went pop
His dog gave forth a wail.
He'd missed the little Bunny quite;
Shot off his doggie's tail.

This is the sad, sad story
Of the dog without a tail
So all small boys, with gun and dog
Be sure your aim don't fail.

MARGARET E. GIBSON,
Worthington Ave.,
R. D. 3, New Castle.

If You Dabble in Sports be a Sportsman

JEEPERS-CREEPERS

"The increase of foxes the past two years has revived the age old sport of fox hunting. With a pair of good open trailers and at least one good tree barker, it is good sport. But when the Creeper is mentioned in this connection with the sport the majority of sportsmen stare at you and wonder what in the devil is a Creeper. What has a Creeper got to do with fox hunting.

"A Creeper is nothing more than a small dog. Small enough to go any place a fox will go. After the hounds hole a fox in the rocks that is where your Creeper comes in. He should be trained well enough to go in after Br'er Reynard without a moment's hesitation. I remember well the time when one of these small dogs, well trained, was worth the price of a pack of hounds.

"The next question usually asked is what breed are they. They don't have to be any particular breed. In fact all that I ever hunted with was a cur. Just so they have plenty of fight, grit, and spunk. That's all that counts.

"Probably some of these little dogs may still be found in Fulton, Franklin, Bedford, or Huntingdon Counties. The late William Conelley of McConnellsburg was the owner of a Creeper that I know accounted for 96 gray foxes—a battle scarred little veteran of six winter campaigns. The McQuade Brothers, also of McConnellsburg, owned one that probably totaled as many foxes. These little fellows are excellent in sections where the gray fox predominates and where you have rock breaks on the ridges and mountains.

"We generally carried them in our hunting coats until the hounds barked in. This was done to conserve energy. I have heard the little fellows make a complete circle under the rocks and when the fight starts, get ready, for Mr. Fox is leaving and fast. Many a time they have found foxes in the rocks, without the aid of hounds. Lips cut, nose bleeding, ears slit, scars on head and neck from past fights they are anxious to go back for more. Truely a remarkable little dog. After your first fox over one of these little fellows, he has won you. You will also experience a thrill not to be found in any other type of hunting."—Game Protector Fred Fisher, Mifflinburg, Pa.



Curiosity also got the best of this groundhog, which was found near Buffalo Creek along Rt. 422 during May last year by John A. Holmes, R. 1, Vandergrift. After the can was removed the "chuck" snorted a few times then left in a hurry.

Allegheny County League Active

We are just in receipt of a brief historical sketch of the Allegheny County Sportsmen's League which now boasts the second largest membership with the State Federation of Sportsmen's Clubs. As a county-wide association it was organized in 1925 through the efforts of Mr. C. R. Hobson, Vice-Chairman of the Southwestern Division and a Director of the Federation at that time. It was the first county organization under the federation plan.

Previous to actual organization as a county unit local clubs were on the move. Homestead was the first club in the district to start the ball rolling in September 1923. The plan was given impetus because of the removal of certain members of the Game Commission by Governor Gifford Pinchot, which aroused the ire of the sportsmen.

Wilkinsburg was the second club to organize and become a member of the later created league. Tarentum is said to have been third. The Fort Pitt Rifle Club, Incorporated, oldest in the League, also joined up early. It is perhaps the second oldest club of its kind in the United States.

Clubs to enter the league at the outset included Homestead, Wilkinsburg, Tarentum, Pitcairn, North Boroughs, McKees Rocks, Hampton Township, Elizabeth, Clarion, Carnegie, Bridgeville, Braddock Field, all already organized and Chartiers Valley, Turtle Creek, Wilmerding, Millvale, Swissvale, Oakmont, Verona, Springdale, Castle Shannon, Dormont, Carrick, Mt. Oliver, and Knoxville in the process of organization.

Clubs now belonging to the League include: Almono, Bridgeville, Bunola, Blawnox, Blaine Hill, Bethel Twp., Carnegie, Clairton, Crow Foot, Cardinal, Coraopolis, Crafton-Ingram, Castle Shannon, Carolina, Cuddy, Carrick, Concordia, Collier, Dormont-Mt. Lebanon, Deerfoot, Etna, E. Monongahela, Fort Pitt Rifle, Frazer Twp., Goodwill Hill, Glenshaw, Hazlewood, Hunters' Delight, Homestead Dist., Izaak Walton, Indianola, Lincoln Dist., Lake and Stream, Library, Mt. Troy, Millvale, Munhall Bucktails, Montour, McKeesport, North Side, North Boroughs, Ox Yoke, Oakland Rod and Gun, Old Allegheny, Pgh. Casting, Pine Creek, Pitcairn, Patton, Pgh. Archery, Rosedale, Richland, Sheraden, Sturgeon, Scott, Springdale, South Side, Sto Ken Rox, Sharpshill, Stowe, Tarentum, Tarentum High, Unity, United Coon Hunters, Western Penna., Wilkinsburg, West Deer, Yough River.

When American airmen are forced to land in tropical jungles, they oftentimes are forced to live off the land until rescue comes or they are able to rejoin Allied troops. Each is now equipped with a .45 caliber automatic pistol, a "jungle kit" containing necessities, and other equipment.

The new shot cartridge is of .45 caliber and contains approximately 120 No. 7½ shot pellets. Pattern tests by Remington ballistic research workers reveal that it will throw an average of 60 per cent of the shot charge into a circle 30 inches in diameter from a distance of 40 feet. It is the first cartridge of its caliber and type to be developed.—Remington News Letter.

HOLD DUCK CONTEST

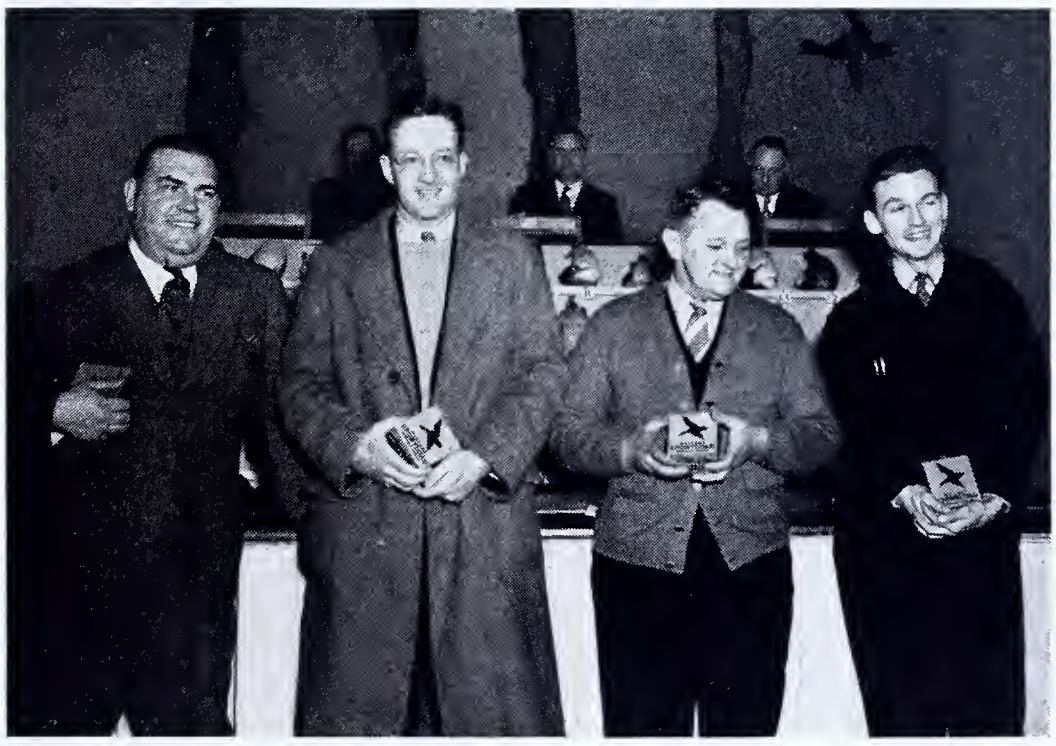
Members of the Delaware County Field & Stream Association were shown one of the largest displays of ducks which can be found in that area, at the February meeting of the organization in the Norwood Fire Company Hall. Nelson D. Hoy, Deputy Game Protector of Delaware County and Chairman of the Entertainment, placed his noteworthy collection of scientific duck skins at the disposal of the organization for an identifying contest. Approximately three hundred and fifty members of the association attended with the greater portion attempting to identify the various species of the forty-one different ducks.

Mr. Hoy, on opening the program, thanked Lt. Commander Robert W. Slye, U. S. Deputy Game Warden Carl Lorup, District Game Protector Blair Davis, Joseph Fox and Kenneth Houghland for helping him, over a number of years, obtain many of the ducks in his collection. Then he presented his friend Lt. Commander Slye, who took full charge of the contest.

The skins were exhibited on a large panel in front of the audience and then they were taken one by one through the audience to allow the participants to study them more closely. The members wrote down the names of the ducks on a form made up and passed out to them before the meeting.

The first prize was carried off by Dr. Howard Moser, who identified thirty-five correct. Others to win prizes were Morton Paul, Earl Flack and Jack Meehla. Three boxes of shells were to be awarded to the winner with two to the runner-up and one each to third and fourth, but Dr. Moser declined the award and his shells were distributed to the three next highest, namely, Frank E. Price, Robert Winger, and John Polk.





Members of the Delaware County Field and Stream Association looking over collection of scientific skins, top, and winners in the novel identification contest at bottom.

Katy, the Hitch Hiking Hound

Have you heard the story of Katy?
Of Katy, the hitch hiking hound.
If you haven't, then listen I'll tell you,
It's really the talk of the town.

Now Kate is a beautiful creature
Her brown eyes are melting and true,
Her ears are so long and so silky
Her voice is so musical too,

Now her Master, a most earnest hunter,
Aimed to kill every fox in the state,
He pitied the birds and the bunnies
So many had met a sad fate.

So Pappy and Kate went ahunting,
They sped to a faraway place,
And soon on a trail Kate was running
It sure was a right merry chase.

This time Mr. Fox was real cunning
He out run old Kate to his lair
And soon Kate was tired of chasing
The little fox, who just wasn't there.

Tho Kate was a very swift runner,
Strong were her four slender legs,
But now she is stepping so softly
As if she was walking on eggs,

She limps to the side of the highway
She lifted a suppliant paw
Her brown eyes soon light up with pleasure
A flivver approaching, she saw.

The driver, a most kindly farmer,
To New Castle market was bound
Stopped his car, and Kate's nameplate then told him
Why, that was HER very own town,

The farmer so very kindhearted,
Felt sorry for poor Katy's plight
Yet, a hitch hiking hound on the highway
Made him laugh and shake with delight,

So he said to poor Katy, Old lady,
I'm agoin your way, so hop in,
Kate nimbly boarded the flivver
And her face wore a beautiful grin,

He brot her right to her own doorstep
The nameplate had told him all that
As he opened the door of the flivver
He gave Katy's head a kind pat,

Kate lifted her paw so politely
Her Master had trained her with pride
And believe it or not, Kate was saying
O thanks for the grand buggy ride,

The farmer laughed long and hearty
I've hauled lots of folks into town
But this is the first time I ever,
Gave a lift to a hitch hiking hound.

Margaret E. Gibson,
Worthington Ave.,
R. D. No. 3,
New Castle.

The Land Management Program--

(Continued from page 5)



Joseph Bistransky and Joseph Steck, of Johnstown, with two nice ones bagged in Potter County last year. We are indebted to Mr. Joseph Kuras, the other member of the party, for the very fine photo.

able timber. To meet these uses without sacrificing the primary objective—game production—is both a challenge and an opportunity.

In referring to game requirements, Dr. Shirley said that it requires a diversity of food and cover for maximum abundance, and that such diversity is common in the well-managed selectively cut forests. All sizes and densities of forest growth prevail, small openings are common, a rich variety of trees and shrubs present, fresh tops from winter logging on the ground, and brush piles for cover abundant. Here game is fat and healthy, and the tree and brush cover makes hunting a real sport. He and his associates believe that foresters and game managers cooperating can bring these conditions about over much of the forest land.

He referred to a land classification program now under way with his Station and the State Planning Board, but said that the Commission need not wait for that. It can, in fact, he said classify its own land or that which it wishes to acquire. It can formulate instructions and policies for the various classes it recognizes, giving priority to those types which are most valuable for game production and which will be the least expensive to maintain permanently in that condition. For instance, lands which are almost certain to revert to excellent timber should be classified as most valuable for forest production and, if acquired by the Commission, should be managed with that objective in mind. If the timber is still young, valuable crops of game foods may be grown for a period of ten or twenty years, but ultimately the land should be surrendered to the forest. Unless this policy is clearly understood at the beginning, valuable young timber trees may be sacrificed to release game food species destined ultimately to pass out of the picture anyhow. *Lands that will not revert to valuable forest for a long while should be managed with game production as the major objective.* Such areas include scrub oak, aspen, birch, pin cherry, frost pockets, or natural forest meadows and many others.

In closing Dr. Shirley cited some of the contributions the Station can make to Pennsylvania's program. First they have developed a system of forest surveying from aerial photographs that will be invaluable in a preliminary land classification. Second, they have developed techniques of measuring site quality both by the growth of trees and by examination of the lesser vegetation. Third, they have studied forest management techniques and learned how they influence the growth of timber and the development of the lesser vegetation. Fourth, they can cooperate with the Commission in studying the effects of different forest management practices on game production. Fifth, they can cooperate in studies of the effects of forest fires on game foods and game; and sixth they can furnish technical information on the propagation of game food plants from seed and cuttings and on the adaptation of various species to site conditions. In bringing his discussion to a close Dr. Shirley said that the Station would be happy to cooperate in the solution of these and other problems of the Commission to the extent that its resources permit.



Left, Roy Huntzel and Jeff Holler, of Boynton, with nice kill of foxes taken during the past winter.

The third speaker called upon was Mr. F. A. Pitkin, Executive Director of the State Planning Board, who discussed the program from the standpoint of Integrating the Commission Land Program with Future State Planning. He said that he was in complete agreement with the early policy of the Commission of acquisition of large tracts of low-cost land for hunting purposes and with the more recent partial shift to the purchase of limited amounts of slightly higher priced land; and the lease of hunting rights on land near metropolitan areas, and claimed that a continuation of such policies will eventually *result in hunting opportunities which can never be rivaled in any other industrial state.*

He called attention to the need of adequate recreational opportunities for all our citizens, and said there can be no doubt as to the value of the Game Commission's program in this respect. He also mentioned certain improper uses of land, such as permitting cultivation of remote submarginal farms, to the detriment of the farmer himself, and to the "clear cutting" of woodland tracts, whether or not the timber is mature. The taxes on such timber tracts are seldom paid with the result that the County Treasurer soon has the land in his hands.

Mr. Pitkin said there were three possible solutions to the many abuses of privately owned lands, i. e., education, regulation and public ownership. He felt we are not doing a very good job in conservation education, but that education alone cannot solve the problem.

He further stated that regulation of the use of privately-owned non-urban land is possible, through our County Zoning Enabling Act, which permits counties to set up parts of their areas as Forestry Districts or Recreational Districts in which any new year-round habitation would be forbidden. He also called attention to the fact that Maryland recently started State regulation of timber cutting on privately-owned land to insure maximum productivity and the requirement of effective reforestation, but that we in Pennsylvania have no such law. For immediate results, we must make use of the one means of forest protection which is now in our hands—transfer to public ownership. In this connection he brought out that there are approximately 6,560,000 acres of "problem area" lands in Pennsylvania, of which less than 3,000,000 acres are now in public ownership. He is of the opinion that the remaining 3,500,000 acres should be acquired by public agencies such as the Forestry Commission, the U. S. Forest Service, and the Game Commission.

Dr. Fred Lininger, Director of the Agricultural Experiment Station, State College, contributed a lot of valuable information to the conference. While the Station is primarily to aid in acquiring and using proper information in connection with agriculture and promoting scientific experiments incident thereto, he pointed out that the 150 persons employed in normal times have training in the basic and fundamental sciences such as chemistry, botany, and zoology, the particular types of training important for research in the field of wildlife and problems of the Commission. He said one of the ultimate plans of the Station is to make complete land classification studies in every county in the Commonwealth. So far only one county, Blair, has been completely classified.

The Station is also contributing much to the conservation program through the joint cooperative research activity between the College, the Commission, the American Wildlife Institute and the U. S. Fish and Wildlife Service, and will continue to do so. Thus will the bird and mammal resources of the Commonwealth be studied carefully in relation to their environment in an endeavor to eventually create on all game lands the best balanced biotic community that can be established.

Hon. Miles Horst, Secretary of the Department of Agriculture, brought out some angles of the subject that merit serious consideration. After assuring those assembled that the Pennsylvania farmer is as vitally interested in the conservation of wildlife as any other group, he suggested that the Commission move cautiously in the matter of acquiring lands that can be used or have possibilities for use in the production of food. He was referring primarily to lands that have been cleared at one time or another for cultivation, but for the time being are lying idle. He is of the opinion that these idle lands will again be brought back either for agriculture or grazing, and for that reason State agencies should think twice before purchasing them.

Mr. Horst is of the opinion, however, that a conservation program should be built up, and he believes the farmers of the state would support one because they not only represent 7% of the population but purchase 10% of the hunting licenses which are sold, not counting those who hunt on their own and adjacent lands without a license.

Mr. Horst felt that a cooperative program would be worth considering, and that education should be stressed. He said his father always insisted that every last thing along the fence rows had to be cut. They cleaned everything, because it was sloppy to have briars or brush anywhere along the fence. All the trees were torn out because they didn't want to go around them with a binder. "Maybe we were standing in our own light," the Agriculture Secretary so ably put it in referring to that sort of clean farming—"Maybe we forgot something—and that is the relationship of birdlife to the success of agriculture."

In closing Mr. Horst urged more cooperation between sportsmen and farmers during the hunting seasons, claiming that much has been done the last ten years to break down the barriers between the two groups.

Attorney General James H. Duff, who sat in on the conference to "listen and not say anything" as he put it, nevertheless was prevailed upon by President Leffler to make some expression. Accordingly, he recalled the early lumbering operations of the Commonwealth and their effect on wildlife, and spoke of the necessity of building small dams in the streams in conjunction with the game and reforestation program so as to assure a supply of water through those areas which will be helpful in their management.

The foresters angle of the subject was discussed by Mr. William E. Montgomery, Deputy Secretary of the Department of Forests and Waters, who claimed that there is no irreconcilable difference between forestry and game, and that there is no reason at all why the production of game can't be considered as a fundamental purpose on state forests and other forest lands as well as the production of timber, protection of watersheds and the use for recreational purposes. He claimed on the other hand that there were some sections in the state where there are widespread areas upon which reforestation is impossible *because of the over-abundance of deer,* and that *such areas cannot be planted because the plantings are immediately eaten by the animals.* Numerous experiments were made *but not to good advantage until after doe seasons when the deer were thinned out enough to allow the trees to grow.* Mr. Montgomery believes that both forestry and game can be integrated and prefers selective cutting to benefit both.



Photo by Ross G. Metz.

The Land Management Program has helped greatly to improve the environment for wild turkeys.



We are indebted to C. L. Tyson, Millersburg, for this foursome taken last Fall in Clinton County by members of his party.

The soil phase of the program was outlined briefly by Mr. Frank C. Edminster, Chief, Regional Biology Division, Soil Conservation Service, Upper Darby, who suggested that the sensible approach to any land management study is to give consideration first to making an inventory of the physical resources of the land, second to determine the most extensive use to which it can be put, and third going ahead and utilizing it. He suggested also *that individual landowners who reside on the land areas be taken into serious consideration from the standpoint of enlisting their aid in some cooperative program or another.*

Other speakers who contributed to the program included *Mr. John Hershey, President of the Pennsylvania Nut Grower's Association,* who pointed out the need for providing more nut trees, such as the walnut, as a future crop, a move heartily endorsed by *Mr. Merrill Merritts, Past President of the Pennsylvania Federation of Sportsmen's Clubs,* who spoke briefly on the same subject and stressed the need for intermixing tree plantations rather than all conifers.

Mrs. Ira Scott, Chairman of the Department of Conservation and Gardens of the Pennsylvania Federation of Women's Clubs, hit the nail on the head when she pointed out that many of the problems under discussion might never have reached their perplexing stage had conservation education been taught in the public schools in years gone by. She said her organization would never be satisfied until it was made a part of the school curriculum.

Like Mr. Edminster, she also felt that *in-*

(Continued on page 32)

TULAREMIA----

fed on an animal infected with tularemia. It is not necessary for the infection to gain entrance to the body through a cut or scratch on the hand, as the germ frequently penetrates the normal skin.

Many hunters have developed the disease by transferring the infection to the eye with their hands after dressing a rabbit. The use of rubber gloves is sometimes recommended as a safeguard when dressing all rabbits. Personally, I do not share this opinion. I believe that a hunter is just as likely to contract the disease with the use of gloves, as the average hunter will have his gloves contaminated inside and out after dressing the first rabbit.

The disease was first discovered by Dr. George W. McCoy of the United States Public Health Service in 1910, when he was investigating a disease of ground squirrels in Tulare County, California.

In 1920, Dr. Edward Francis of the United States Public Health Service determined that an epidemic of deer fly fever occurring in woodsmen in Utah was due to the same Bacterium tularense as had caused the disease of rodents studied by Dr. McCoy ten years earlier.

The disease is spread from one rabbit to another usually by the rabbit tick, but may be carried by other blood suckers, ticks, fleas and lice.

Man is most frequently infected through dressing diseased animals. Many housewives contract tularemia through preparing dressed rabbits for cooking.

Infected dog ticks caused 73 cases in the southern states, while the wood tick infected 53 persons in the mountain states of the west. In this same area, the horse fly was responsible for infecting 170 victims.

Ninety percent of all cases of Tularemia are contracted by man from wild rabbits and hares, although many persons have developed Tularemia after handling or dressing birds and animals other than wild rabbits or hares.

14 persons had dressed tree squirrels.

9 had skinned opossums.

1 case each followed the dressing or skinning of a deer, red fox, coyote, sage hen or bull snake.

2 cases each followed like contact with quail, groundhog, muskrat, hog or skunk.

20 cases in five families, of whom 12 died, were traced to eating wild rabbits infected with Tularemia that had been insufficiently cooked.

The diagnosis of Tularemia in man presents very little difficulty. The signs and symptoms appear from one to seven days after handling an infected rabbit. The onset is sudden, with chills and fever, general pains, weakness and headache. The primary lesion is most frequently found on the hands and fingers in the form of a shallow ulcer with a grayish membrane and very little pus formation. It is slow in healing. The lymphatic glands at the elbow show considerable swelling and are very painful, and later the glands underneath the arm become involved.

If the eyes are rubbed by hands upon which there is infected material, an infection of the eye will develop with swelling of the glands about the head and neck, with the same general symptoms that appear with the primary lesion on the hand.

The diagnosis may be confirmed by laboratory tests, but usually only after the third or fourth week of the illness. The disease runs a long course, very similar to typhoid, usually incapacitating the patient for a period of three to six months.

(Continued from page 3)

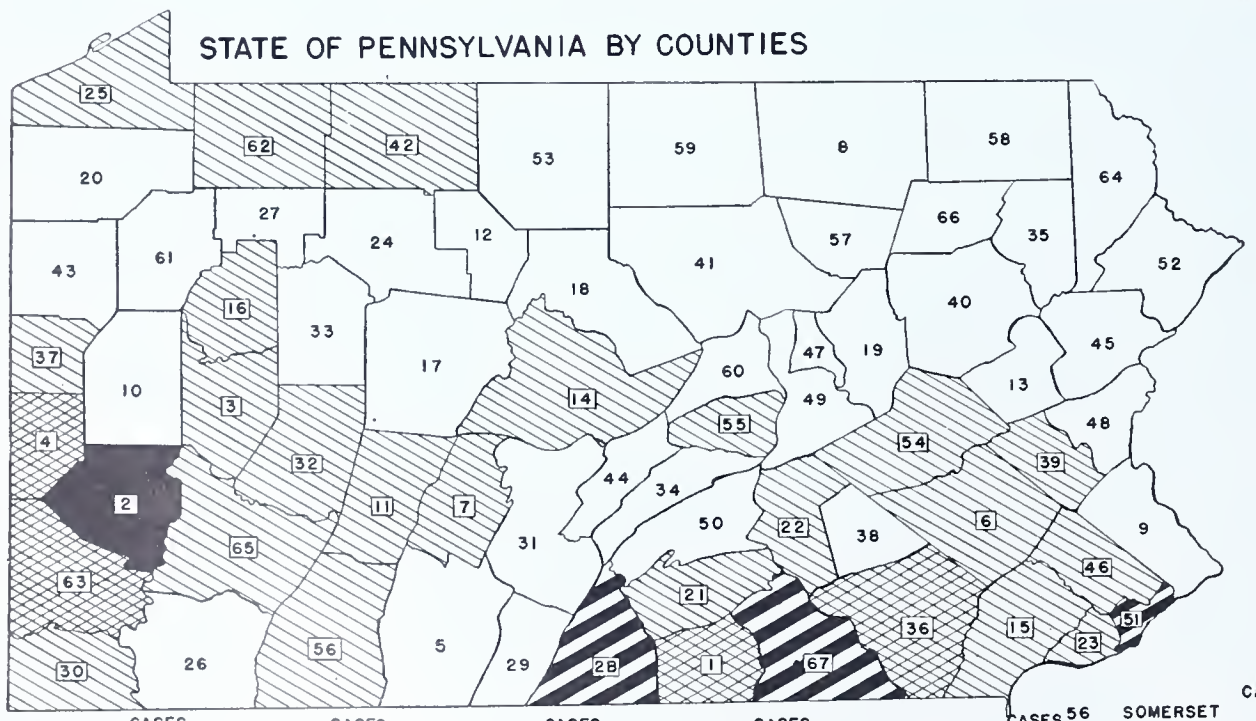
The Game Commission first began the importation of rabbits for stocking in 1915. Five thousand rabbits were purchased in Virginia and released in various parts of the state. There is no report of any cases of Tularemia developing from this first shipment of rabbits due, perhaps, to the fact that Tularemia was not known as a disease of humans at that time. Fifteen thousand rabbits were imported in 1921 and fourteen thousand three years later from Missouri. This area, with the exception of Illinois and Kentucky, is the most heavily polluted section of the United States. It was shortly after the introduction of the Missouri rabbits that Tularemia appeared in Pennsylvania, and following the release of 80,519 rabbits in 1927, purchased in Missouri and Kansas, the disease developed rapidly.

Thirty-seven counties, located mostly in the northeastern section of the state, have reported no disease among the local sportsmen, which we should no doubt interpret to mean that no disease-bearing rabbits have been stocked in these areas.

The Game Commission has discontinued the purchasing of rabbits outside of the state and has inaugurated the plan of trapping rabbits in and about our cities and towns, to be released where there is a need for restocking. This plan assures the sportsman a rabbit free from disease, much larger in size and at a cost much less than rabbits shipped from Missouri or Kansas.

I recommend to the sportsmen that they seriously consider the adoption of the plan now carried out by our Game Commission, and that the importation of rabbits for stocking or market purposes be immediately discontinued.

CHART NO. 2—DISTRIBUTION OF 282 CASES—1928-43



DEATHS REPORTED IN PENNSYLVANIA

YEAR	NUMBER
1930	2
1934	2
1938	3
1939	10
1940	2
1941	6
TOTAL	25

		CASES			CASES			CASES			CASES			CASES
1	ADAMS	12	12	CAMERON		23	OELAWARE	1	34	JUNIATA		45	MONROE	
2	ALLEGHENY	104	13	CARBON		24	ELK		35	LACKAWANNA		46	MONTGOMERY	5
3	ARMSTRONG	1	14	CENTRE	1	25	ERIE	3	36	LANCASTER	16	47	MONTOUR	
4	BEAVER	15	15	CHESTER	3	26	FAYETTE		37	LAWRENCE	1	48	NORTHAMPTON	
5	BEOFORO		16	CLARION	1	27	FOREST		38	LEBANON		49	NORTHUMBERLAND	
6	BERKS	6	17	CLEARFIELD		28	FRANKLIN	21	39	LEHIGH	2	50	PERRY	
7	BLAIR	2	18	CLINTON		29	FULTON		40	LUZERNE		51	PHILADELPHIA	25
8	BRADFORD		19	COLUMBIA		30	GREENE	3	41	LYCOMING		52	PIKE	
9	BUCKS		20	CRAWFORD		31	HUNTINGDON		42	McKEAN	2	53	POTTER	
10	BUTLER		21	CUMBERLAND	7	32	INDIANA	1	43	MERCER		54	SCHUYLKILL	1
11	CAMBRIA	1	22	DAUPHIN	3	33	JEFFERSON		44	MIFFLIN		55	SNYDER	3

		CASES
56	SOMERSET	2
57	SULLIVAN	
58	SUSQUEHANNA	
59	TIOGA	
60	UNION	
61	VENANGO	
62	WARREN	1
63	WASHINGTON	12
64	WAYNE	
65	WESTMORELAND	3
66	WYOMING	
67	YORK	23

DR. I. H. ALEXANDER, DIRECTOR
DEPT. OF PUBLIC HEALTH
PITTSBURGH, PA.

STATISTICS FROM STATE HEALTH DEPARTMENT

BLACK MARAUDERS----

(Continued from page 8)

retired to a nearby tree out of shotgun range.

Hunting from a blind is a different story and involves a little work and forethought. Your blind must be located and built to blend with the surroundings. In other words, if you locate it in a cornfield build it out of cornshocks, by putting a couple of them together in the form of a tepee, with a hole in the center to shoot from. If you locate your blind along the edge of a woods, build it of brush. This is all necessary because the crow has a very good set of eyes and will avoid anything that looks out of place.

When the blind is built to your satisfaction, place an owl on a post or tree within shotgun range in front of the blind. Any stuffed, wooden or artificial owl that looks lifelike, and is big enough to attract attention at a distance will do as a decoy. When you have everything outside arranged, crawl into your blind and begin calling with crow call. The first crow that answers and comes within range of your owl, knock down, but don't retrieve it. Let it lie, because it will serve as a decoy too. Knocking them down as they come in will not give them a chance to discover that your owl is a fake, and they cannot fly off and warn their comrades to stay away.

Stationing yourself along a flyway will produce good shooting too. Day after day, week after week, long drawn out of flocks of crows will pass along these established routes, over certain fields and woodlots, on their way to their roosts. One of the best positions I have found is between a garbage dump and their roost. I either place myself about a half mile away from the dump and pick them off as they come over, or place myself at the same distance from their roost. It is a much harder place to find a good position at the roost, however, as a crow will always come into it downwind, and you never know which way the wind will blow. It is easy to determine their flyways and a study of the crows that inhabit your neighborhood will reveal their feeding grounds, gathering places, and roosting areas.

In selecting your shells for the hunt don't use any loaded with light shot, as corvus can carry a lot of shot sometimes before he is brought down. Use shells loaded with No. 4 or 5 shot for best results. Also when possible use a full choke gun. It will give you a denser pattern at long ranges, enabling you to reach out and connect. A modified tube will not insure the best results due to its thinner pattern at long ranges.



Photo W. L. R. Drake.
A good haul.

FIELD NOTES----

(Continued from page 22)

"I have seen fewer rabbit tracks this winter than any year in the last twelve. Ringnecks also seem scarce and these are the easy prey of the fox.

"I am trying a mix of calcium chloride with the dirt I use to cover the dirt hole sets to keep the traps from freezing down at night. Will report later on the success of this experiment. Foxes have been walking all over the traps this month and only one went off—result—one female grey fox. This set was a regular dirt hole set except that I made it on an old pile of buckwheat straw and covered it with buckwheat chaff which does not freeze as easy as the dirt. I am having trouble at present with crows getting in the sets when they are soft, so I cannot use bait in the holes.

"The beaver season was a success as usual in this area. The persons who used traps placed or set close to or in the entrance to the houses got beavers; others got exercise. Would suggest that a limit of 10 feet from the edge of a house be used in the next season so that all trappers would have an equal chance at the animals."—Game Protector R. P. Schmid, F-7.

"Mr. John Bost of Greenville had a unique experience with a 'possum sometime ago. He caught one in his back yard in a box trap. He then placed the animal in a chicken crate until he decided what to do with it. The animal worked one of the slats loose on the crate, but it seemed she (it was a female) was too fat to get through the slats. She then removed 16 young 'possums one by one from her pouch, crawled through the crate, then gathered her family in her pouch again and proceeded on her way."—Game Protector Samuel K. Weigel, F-9.

"While out with Game Protector Claude B. Kelsey looking for dogs running deer, we counted one hundred deer in about 10 miles in Liberty Township, McKean County, on March 1, 1944. In fact there were 38 deer in one drove. They all looked in fine shape for the winter we had up here, so I guess the doe season didn't hurt them much."—Deputy Game Protector Harry L. Rittburg, Division E, Port Allegany.

"On February 15 Messrs. Piper Donohue and Hilton Taylor were hunting foxes on Warriors Ridge west of Huntingdon. The dogs were working a cold trail some distance from these men. After some time the hounds started to bark at a hole. They then released their creepers which soon got to the hounds. The men made their way to the hole as rapidly as possible. It proved to be a cavern type. The dogs were just coming out of the entrance and they were full of porcupine quills; one dog's mouth was so full it couldn't close it. The hunt stopped then and there, and the next couple of hours were spent in removing quills. As far as I know the dogs have recovered from the ordeal. I have also had several other reports of porkies in the northern part of Huntingdon County. It seems that they are moving south for more and better range. If this menace is not overcome it will play havoc with the raccoon hunters in this section— and there are quite a few 'coon hunters."—Game Protector Wm. Lane, Division D-6.

"On January 28 while going home on a leave I was surprised at the number of crows along the river from Lewisburg to Sunbury. There were perhaps several thousand and they all stayed over the middle of the river. They did not seem to be flying in any particular direction, but would sweep up and down the waterway. Their direction seemed to be down-river, but it was not a definite down-river flight. I had never seen this phenomenon, if it may be called one, before, and it amazed me as to why the crows would stay out over the water in that manner.—Game Protector, Clyde E. Laubach, District E-11.

During latter February and early March Charles C. Vandervort of Laceyville had around 150 Evening Grosbeaks coming to his feeding and bird-banding stations daily for food. Their main diet is sunflower seeds, and some peanuts and the birds consumed several pounds of sunflower seeds daily. According to Mr. Vandervort, it is a thrilling sight to see the striking birds coming in to feed.

Notes on the Common Woodchuck

(Continued from page 7)

fore early spring will they be seen again above ground, excepting on their DAY, February 2, when they emerge to look over the sun and shadow situation. If they see the cast shadow of their head and shoulders purple on the snow before their burrow they go back to sleep for six more weeks, assured that the backbone of winter has not been broken. But if this day be cloudy, producing no shadowed image, look for mild weather from then on. This popular belief may have its roots in the fact that sudden warm sunny winds (chinooks the "sourdoughs" call them) often coming in February through the great northland, will cause many hibernating animals to emerge sleepily from their burrows for a day or two, possibly under the impression that winter is over. There are many instances of bears being fooled by these false Springs—and woodchucks are not unlike small bears.

So, be on the lookout for Marmota monax —whether you treat him to some young beets and early peas or to a high-velocity pellet of lead.

Red Foxes and the Bounty--

(Continued from page 9)

found on the warpath against our favorite small game in almost any sector of our small game habitats, but even this escapes our attention while we are so concerned about the increase in red foxes.

Of course, we cannot overlook the fact that the farmer with his position in relation to predators is to be taken into account in an analysis of this kind. Foxes destroy his poultry. A release by the Pennsylvania Poultry Federation last winter asserted that a fox can do up to $200.00 damage to a poultry raiser in one year's time. That is possible, but hardly probable. Certainly, it would be a foolhardy farmer who would neglect to take such measures as necessary to avert a loss as heavy as that. So much for the poultry raiser for the present.

Take the farmer who raises corn. Foxes are not apt to do much damage to his corn, but an adult, male raccoon can certainly devastate a corn patch; so it is just as probable that a bold, robust 'coon can do $200 worth of damage to the corn field. However, that too is unlikely to happen. Aside from that, the raccoon is a very able destroyer of game bird nests, so we see we have a pretty difficult problem to distinguish correctly the right from the wrong on the predator question. Our best policy would be to stick tight to conservation principles and ideals. Bucking one another simply because we hold the Ace card in our hand avails us nothing.

If we would berate the red fox, wouldn't it be logical to conclude then that all these other predatory animals belong in the same class and should be subject to equally as much control as the fox? If we know anything at all about the good qualities of any of these predators then we should agree that they are more of an asset to us than a liability. In their own right all of them belong in nature's scheme.

The red fox is no saint, to be sure, but neither is it a sinner of the first degree as some contend. It is designed to a fixed position in the natural order of things and no man-conceived idea can successfully alter the situation at the price of a few dollars per fox. Among us there are many, indeed, who can state frankly that no one-track-minded group of sportsmen can prosper at the expense of others. More can be gained by working together, not for selfish gain, but for the common good of all concerned.

The more important facts that should be given proper attention when contemplating a bounty are the detrimental reactions that follow as a result. In the first place we should give consideration to the fur value of the red fox. Good prime pelts were selling for $15 last winter. How much is a skin worth in the period from March to October? Nothing, of course. Why should we resort to the payment of bounties to "control" the fox? Foxes will not stay long in a place where there is nothing for them to eat. Where you find foxes you'll find plenty of small game too. Nature provides for the perpetuation of her feathered and furred creatures by the process of balanced procreative power and the instinct of self-preservation.

Some of us will contend that a number of game animals can be saved. Probably so. But on the other hand it is just as likely that some other predator would do the job in the absence of one that has been eliminated. The destruction of a few hundred or a few thousand red foxes throughout the warm months of the year as a game saving idea is misapprehension of ill-informed conservationists. The best authorities on the subject maintain that the food supply of red foxes is plentiful and diversified from Spring to Fall, consequently the damage to small game must be proportionately low.

With a bounty in effect what may we expect? The farmer will be too busily engaged on the farm to pay any particular attention to foxes, if he has any interest in them at all, and just about every one else who traps or hunts foxes will be too well occupied in war industry or some other essential civilian occupation (if not in the Service), so where are we going to get the men to control foxes? The answer is easy enough. We will succeed in luring a few dozen destructionist-trappers from otherwise more essential work to the job of shameful, wanton killing of foxes and all that goes with it in warm weather. The trap has no place in the woods when the pelage of fur-bearing animals is of no commercial worth, but for the sake of a few dollars' inducement there will always be men who will be only too glad to indulge in such an out-of-season practice. The man who really knows his business, whether a good fox trapper or a good fox hunter, will be disregarded and cast aside as a second fiddler in the deal. This fellow will not kill a fur-bearing animal before or after season. His conscience is his guide and he believes in governing his actions in accordance with right principles, and it is the man of this caliber who is really deserving of our support.

The summer trapper is of no real value under any system of predator control because besides taking foxes he takes at least an equivalent number of other animals in his traps, among them game creatures as well. And more, likely than not, they go the way of the fox. The payment of bounty on the red fox does not, as a rule, materially affect the local area or areas where the job is most desired. Unless we can prove without doubt that the reward policy has real merit, we expose ourselves as very poor game conservationists indeed.

The very best wildlife judges are men comparable to the fox chasers, hunters and trappers who have devoted many seasons to hard study of every phase of wildlife. Among them we have, for instance, the fox artists who have sacrificed sleep on numerous nights, laying awake in bed, searching through their minds for something new or something of more value to help them to outwit their cunning prey. Any man can go out and set traps in warm weather and catch an occasional fox if he knows anything at all about the use of steel traps and methods of their employment. But, only a skilled mind coupled with determined effort can do the trick when the odds seem most unsurmountable. The advocates of bounty have plenty to learn yet. Skill in recognizing and coordinating wildlife facts comes only as the result of diligent study.

Wild animals cannot differentiate between right and wrong. Even bears, deer, rabbits and ringneck pheasants make themselves liable to accusations of fault.

It would be much better if we agreed to use more common sense in dealing with any wildlife question. The red fox is the idol and the inspiration of those who think of it above all other creatures. Like the bird hunter or the rabbit hunter who finds peace and contentment in the pursuit of his favorite game on the crisp days of Fall, the fox enthusiast looks forward with eagerness to the time when the calm, golden October days usher in another period in the chase for Red Reynard—the smartest, the fleetest and the most colorful creature that roams the Pennsylvania fields and woodlands.



"I always use my husband's hunting coat when shopping."



The above catch was made in 1943 by Howard J. Storch, Milan, referred to as "The Phantom Fox Artist." There are 46 foxes in the picture. He just finished this season with a catch of 64.



Another fine catch by C. T. Deremer, R. D. No. 3, Bedford. A lot of the old timers made good hauls last season.

WINTER FEEDING—IS IT REALLY NECESSARY - -

(Continued from page 12)

is no great difference in the fertility of the eggs produced by the two lots of hens. However, it was found that of the fertile eggs those from the fasted pheasants had a higher percentage of hatchability than those from the control group. This would seem to indicate that alternate lean and lush feeding periods, such as occur in a wild state, are highly desirable and not injurious as we have been prone to believe in the past.

On the other hand, a series of similar experiments with bobwhites seem to indicate that winter food shortages may have a pronounced effect on their reproductive powers. In some instances, quail quickly regained the weight lost during winter fasting only to die when the breeding season came. Just why this happened was not explainable, but lack of food during the winter seemed to have a direct effect on their deaths at this time. It is therefore conceivable that after a hard winter we not only lose a great many quail directly but also suffer losses because the birds left may not be in proper condition to hatch and rear normal broods of young.

However, in consideration of the findings given, no blanket statement can be made as to whether lack of suitable food affects the reproductive abilities of animals or not. It would seem that it does in some cases and not in others, generally depending upon the species involved.



Most deer have died of malnutrition rather than starvation.

GOURMAND GREG

Gregory Tombs
Just loved mushrooms,
When we hunted, he gathered instead.
No one among us
Enjoyed his fungus
As much as dear old Greg.
The saprophyte
Was his delight;
He ignored our ridicule.
But he never knew
In his last stew
Was one malignant toadstool!

CARSTEN AHRENS.



Some of My Experiences with Hawks

(Continued from page 13)

fection is admired in a dauntless flying fighter of the air, even though perchance he is an enemy fighter.

Along they came; the rather slow moving but graceful broad-wings; several in the first group. They were high; far beyond shooting range. My field glasses were very useful, as I watched and studied them, hoping to penetrate their innermost thoughts or emotions. Some fifteen to thirty minutes later along came others; sometimes two, three, several or fifteen or twenty. On certain days they flew at lower altitudes than an others. Efforts were made to decoy them, but I failed in my efforts to ever successfully decoy the broad-winged hawk. Early in my experiences, a few were shot and thoroughly examined for types and kinds of food. It was not unusual to find an occasional one with bloody talons, but as a rule we found them "flying light" as we termed it, (flying light without any or little food in their stomachs).

After some study and more experience, I refrained from killing any broad-winged hawks; however, I watched their flights with even more interest. Occasionally a Cooper's hawk accompanied them. If so, decoy was offered, and he generally decoyed out of ranks with all the fury and vicious striking power of his kind. During one of my observations, I observed several broad-wings sailing majestically over one late afternoon; among them I saw the arch killer, a Cooper's hawk. Having no decoying bird, I pulled my white handkerchief from my hip pocket just as this flight was above me. Hardly expecting a strike, I stood to gun rather indifferently. Suddenly and with all the swiftness and deftness for which the Accipiter hawks are noted, he flashed out of his course and came at me with incredible speed. Not being properly balanced and the unexpected happening, I blazed away with both barrels of my customary shooting companion, the twenty gauge. I missed with both shots and he was gone, smart enough to dive low in the red brush which surrounded me in my concealment. Sharp-shinned hawks also accompanied broad-wings later in the month of September. They responded to decoy very readily, but were most difficult to hit, because of their small size and ability to dart more abruptly from the path of danger. We missed many of them.

Later in the fall season, generally during October, the larger hawks came. Buteos; red-shoulder and red-tailed. Along with them came the marsh hawk, classified as the only harrier type of hawk common to our regions, which occasionally flew with the September groups. Quite frequently the American rough-legged hawk, also in the buteo classification which is easily mistaken for the red-tail, flys with this group. Cooper's hawks continue to fly; so do the goshawks, which are the most powerful and perhaps the most deadly of all excepting the duck hawk, which is very rare as heretofore mentioned.

Perhaps I had better briefly outline just how we prepared ourselves to observe the hawks and receive them for the purpose in mind. Hawks migrations do not occur everywhere nor over every mountain range. Their migration routes are quite definite and I understand from all the reliable authority available, as well as from the old natives living in the community, that these courses have been followed throughout the years. A brush blind is built on some high spot along the route just opposite a preceding high spot over which the hawks will fly rather low when crossing.

Immediately after negotiating the pre-

(Turn page)

BOUNDARY LINE



On November 24, 1943, Mr. Louis T. Fawcett, Chief Engineer of the Mahoning Valley Sanitary District, took me to see an interesting marker on the boundary line between Ohio and Pennsylvania. It lies on the first summit south of the Mahoning River, perhaps 100 yards south of the main highway, U. S. 224.

The monument is a granite boulder lying nearly buried in the gravel and shaded by an overgrown hedgerow. Mr. Fawcett had seen it before and readily found it to show me, and I took the accompanying picture of this monument.

Mr. Fawcett also kindly loaned me a rare volume entitled "Notes from Report of Joint Commission Appointed by Pennsylvania and Ohio to Ascertain and Remark the Boundary Line Between Said States as It Was Originally Established," 1883. Columbus. From these notes I learn that this is called the "Barklay Monument," placed in 1786 as I saw it in 1943, and one of two of these monuments which have remained in their original position. The State boundary line passes through the foot of the stem of the large letter "P" which was carved on the upper surface of the boulder.

At the time this monument was placed in position it marked the western boundary of Pennsylvania, and everything west of this line was Northwest Territory. *Eighteen years later the State of Ohio was organized and admitted to the Union.*

Although this historical marker is on privately owned land, it is protected by Ohio State law, which sets a penalty for disturbing it of a fine of from $100 to $500 and/or imprisonment from one to six months. Obviously this monument should be given greater security and recognition by the establishment of permanent sanctuary for it, in situ, in a public park.—Thomas H. Langlois. —*Courtesy Ohio Conservation Bulletin, February, 1944.*

Some of My Experiences with Hawks

(Continued from page 31)

ceding high spot, the hawk generally follows the course to the next high spot. It is then that the decoy bird is flashed in the air. If he spots it and is the decoying kind of hawk, you witness one of the most thrilling acts portrayed in wildlife conduct. Like a bullet he comes straight at your blind. Your nerves are taut, strained almost to the breaking point as he swiftly approaches. Then something happens! He unlimbers his striking weapons; they are tested, sometimes several times before he strikes. His winged prey is struck with folded feet or talons, which develops the shock that momentarily stuns his victim. Instantly, however, he seizes with his talons and proceeds to perch or cover to finish off his prey and devour it.

At these blinds, we sometimes caught the hawks alive in large hoop nets just as they sailed over the top of the blind. If they had not put on the brakes beforehand, however, it is likely that the nets would have been knocked out of our hands. When I speak about putting on the brakes experienced hawk observers know just what I mean, but the layman naturally wants to know what is meant. All the perfect buoyancy, control of flash, dart and dash of the hawk is managed and directed by his tail, just as the rudder serves on a small boat or a great ship. Watch him as he sails majestically through the air for pleasure and training, or whether he is maneuvering for the strike. You will observe that his tail is tipped, slanted or sharply pulled down to change his course or check great speed. His rhythm, timing and balance is perfect. Since we all admire and marvel at perfection, you will not wonder at my fascination nor the joy and pleasure of the Nature Lovers who appeal to us not to destroy or exterminate them.

During one of my experiences at a hawk blind, my companion had his hat knocked off his head and the decoy bird was struck out of his hands just as he was hastily retrieving it. We generally used two or more birds in a humane manner to decoy the birds of prey. Constant work for an hour or so required that the decoy bird be replaced in a box to rest while another served in its capacity. Sometimes our hands became scratched or rather severely lacerated, which required immediate antiseptic attention, as the talons, (or sometimes called claws), of these birds of prey may be highly impregnated with dangerous germs which are prevalent in rodents or small game animals in certain sections over which the hawks may choose to feed.

You may ask; How do you know all these hawks and how can one discern one from the other? Kind reader, only through your interest in them and your study of their conduct and habits. Be patient and unbiased regarding their conduct, and you will be rewarded with many great wildlife thrills and experiences which will lead you on and on in search of new and more information regarding them. Experience will guide you from one finding to another, as you get inspiration and joy from studying and understanding them.

I shall be happy to relate additional experiences regarding the birds of prey if the interest is sufficient to warrant it. One of my goshawk hunts in Potter County with several of my fellow officers some years ago was most interesting and exciting to all those who participated.

I trust my readers will be considerate of my point of view and that due consideration will be given the much maligned birds of prey, which are generally placed in the classification of bad hawks because of the bad habits of bad hawks.

The Land Management Program - - - -

(Continued from page 27)

dividual landowners should be encouraged to manage their lands more wisely, pointing out that too many of them are overlooking or neglecting many phases from the wildlife standpoint as well as from those of timber and agriculture.

Dr. R. D. Anthony, Professor of Pomology, Horticulture Building, State College, looked at the picture from the sportsmen's angle, claiming that it can't possibly be considered wholly from the standpoint of the hunter, but from that of the public at large.

Harris Breth, sports writer, Sun Telegraph, Pittsburgh, presented some outstanding figures on the value of wildlife which he intimated could be increased immeasurably as a result of improved management. He said he thought the conference was a good beginning, and urged that the people of the state be continually informed of its future developments through every medium possible, particularly the press.

Among others who spoke briefly were Dean R. L. Watts (Dean Emeritus School of Agriculture), State College, Mr. Robert Vale, Sports Writer of the *Philadelphia Daily News,* Dr. Ellwood B. Chapman, President, Pennsylvania Parks Association, Mr. H. Gleason Mattoon, Secretary, Pennsylvania Forestry Association, and Hon. J. Q. Creveling, former member and for many years a guiding spirit of the Game Commission. In his comments Mr. Creveling recalled that the original purpose behind the land purchase program in Pennsylvania was to acquire ultimately around three million acres of state game lands and an equal area of state forest lands, and that he hoped the time would come when that goal is reached. He stressed the importance of unity of purpose between those agencies concerned with the multiple uses of game and forest lands, and commended those present for their obvious interest and attendance.

At the conclusion of the three and a half hour conference President Leffler requested all present to submit their recommendations in writing in order that the Commission might have the full benefit of their views on the subject.

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Ten Cents

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EDITORIAL

June, 1944

IN THIS ISSUE

★

Help for the Gardeners
By G. Bartlett Hendricks

★

Forestry and Wildlife Management
By P. F. English

★

A Bird in the Hand
By Fred Everett

★

A Review of the Ruffed Grouse
By W. C. Ryder

★

Winter Feeding—Is It Necessary?
By Helen Merritts

★

In Defense of the Fox

☆

Quiz Program

★

Cover by Dr. A. A. Allen Cornell University
(Black and White Warbler feeding young)

★

Bradys Lake Area More Accessible

An exception in the management of its almost 800,000 acres of State Game Lands was agreed upon recently by the Game Commission in the case of Bradys Lake, Monroe County. Greater use of the area for fishing and other recreational purposes, in no way interfering with the primary objectives for which the property was acquired, is now permitted. Without the recent modifications in the general regulations governing the use of State Game Lands maximum public enjoyment of this unique combination of land and water would not be possible.

The Bradys Lake purchase contains almost 4,000 acres lying adjacent to the Tobyhanna Military Reservation. Bradys Lake, originally an ice dam, comprises about 180 acres, which is regularly used by waterfowl and fur-bearers. It abounds with fish of many species, particularly black bass. When the property was acquired two years ago, the Game Commission prohibited the use of boats on the lake until satisfied the waters were adquately stocked. In the meantime, a road leading thereto has been improved to make it easily accessible.

Members of the Game Commission, following their meeting in Wilkes-Barre on May 6, made a complete survey and agreed to improve the public recreational facilities by: (1) Permitting fishing from the shoreline or wading between 5 A. M. and 10 P. M. daily from April 15 to September 30, inclusive; (2) Permitting fishing from rowboats and canoes during the same hours from July 1 to September 30, inclusive; (3) Allowing the owners of such rowboats and canoes to leave them on the property at their own risk, provided they file their name and address with the officer in charge; (4) Permitting the use of the road leading to a special parking lot, except during the hours when fishing is not allowed; and (5) Permitting the building of fires for cooking purposes at designated fireplaces. Fishing within the upper portion of Bradys Lake, to be set aside as a refuge for waterfowl, will not be lawful at any time.

In liberalizing its general regulations governing State Game Lands to provide the foregoing advantages, the Commission adopted special regulations applicable to the Bradys Lake purchase which will prohibit fishing of any kind from October 1 to April 14 inclusive, or fishing between 10 P. M. and 5 A. M. from April 15 to September 30 inclusive; loitering or camping in automobiles or otherwise between 10 P. M. and 5 A. M. during any time of the year; or using boats propelled by motors or electrical devices, unsafe canoes or boats, or rafts or floats of any character.

The primary purposes in acquiring State Game Lands are to provide public hunting grounds and refuges and to protect watersheds. However, approximately 2,000 miles of good fishing waters and numerous lakes and ponds are also available to the public, except where they are included within State Game Refuges which are not specifically declared open to angling.

Development of the Bradys Lake parking facilities and other provision for the convenience and comfort of the public is now underway. It is hoped to have these completed by July 1 when the bass season opens.

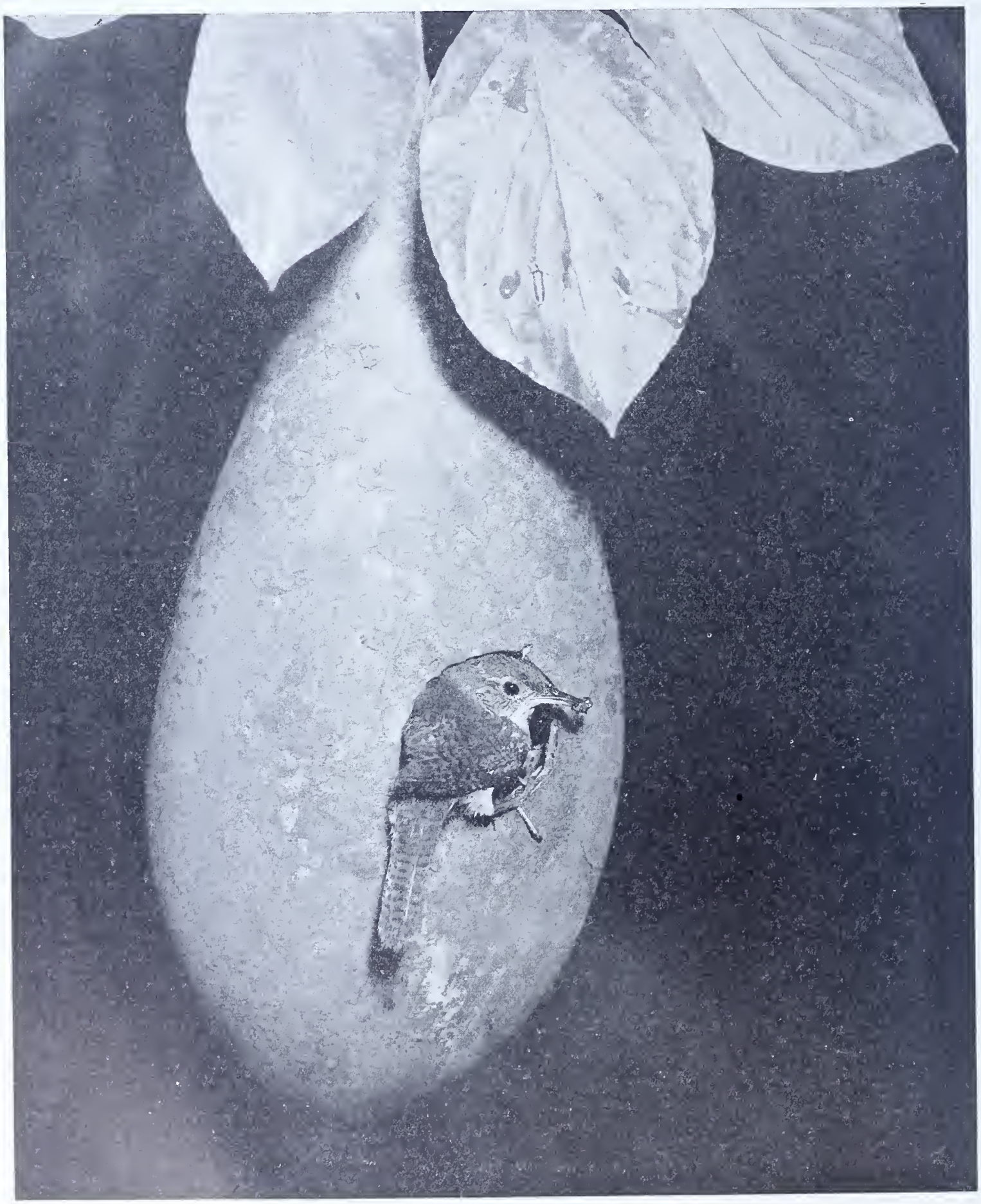


Photo by Roger Tory Peterson—Courtesy Audubon Magazine.

A HOUSE WREN AT HOME IN THE ROOSEVELT MEMORIAL SANCTUARY.

Photo by
Allan D. Cruickshank



Help for the Gardeners

By G. Bartlett Hendricks

YOU may have been singing the praises of birds for years, but plant your first vegetable garden and learn from experience how really useful birds can be!

Many a citizen who has never before raised blisters with a hoe, will be doing so this year in victory gardens. And those who do not realize what allies birds can be, will be kept busy from morning to *Mazda* combatting some infinite number of crawling, hopping, running, gliding, flying and wiggling insect pests.

The entomologists, the lads who make a life study of insects, have already described over 625,000 species, and the number is growing hourly. Today a man no longer is an expert on insects—the number is so enormous that no single individual, with less than five lifetimes at his disposal, could hope to know them all. Entomologists must become specialists—some study *coleoptera* (beetles), others study *diptera* (flies), *lepidoptera* (moths and butterflies), or members of other orders.

The speed with which insects increase staggers the imagination. A pair of potato beetles would produce 60,000,000 offspring in a single season, if unchecked. In one year a pair of common aphis, or plant lice, would multiply until they covered the entire earth, if all natural checks were removed. Perhaps the most startling example was given by the late Edward Howe Forbush, Massachusetts State Ornitholigist. Speaking of the hop vine aphis, which is said to have thirteen generations in a year, he wrote, "If we assume the average number of young produced by each female to be one hundred, the number of the twelfth brood alone, assuming all lived, would be ten sextillion. Were this brood marshalled in line, with ten individuals to an inch, the procession would extend to the sun, and beyond it to a point so inconceivably remote that light could only reach us from it in 2,500 years!" And the speed of light is 186,000 miles per second.

The insects would have run man, for all his intelligence, right off the planet long ago, did not the weather, disease and other living creatures act as automatic checks on their populations. Insects are eaten with alacrity by most living creatures, including other insects. And far from the least of insect-enemies are the birds; particularly the common, or garden variety.

The fellow who originated the simile "a birdlike appetite," must have been speaking facetiously, for an old grandmother of a bird, and one not feeling up to scratch either, can eat in a way which would put a hog, or even a ten-year-old boy, to shame. Birds operate under a much higher head of steam that we do, and many species will actually starve to death if they do not eat almost constantly. Young robins will consume half their own weight a day, and ask for more. This is equivalent to a man eating seventy-five pounds of food every twenty-four hours.

Bird's stomachs are large, and will stretch to hold an astonishing amount of food. A flicker's stomach was found to contain 28 fat white grubs, for example, while a nighthawk's contained 340 grasshoppers, 52 bugs, 3 beetles, 2 wasps and a spider for good luck!

Forbush found that a baby crow, when given only about three ounces of food a day, lost one and a half ounces in weight. "The fact," he wrote, "that a bird, while in confinement and without a great amount of exercise, could lose nearly ten per cent of its weight in a single day, even when fed a quantity of food equal to about one-sixth its weight, shows how dependent birds are upon their supply of food."

Some of us complain at having to feed the baby five times a day, but a male purple martin was observed to visit the nest 119 times in one day, while the more ambitious female crossed the family threshold no less than 193 times carrying insects to the young swallows.

The Goldfinch eats plant lice, caterpillars, grasshoppers, beetles, cankerworms and other insects. Also destroys many dandelion, thistle and ragweed seed.

The next time you feel your temperature rise at the sight of a few sparrows gobbling up five cents' worth of newly sown grass seed, you might recall that in Iowa, alone, tree sparrows are known to consume over 800 tons of weed seeds annually; that 9,200 seeds, chiefly of noxious weeds (such as wood sorrel, barn grass, slender joint-grass, orange hawkseed), have been found in the stomach of one mourning dove; or that the rose-breasted grosbeak, one of our most beautiful song-birds, would rather eat himself under the table on a diet of potato beetles than anything else you can name.

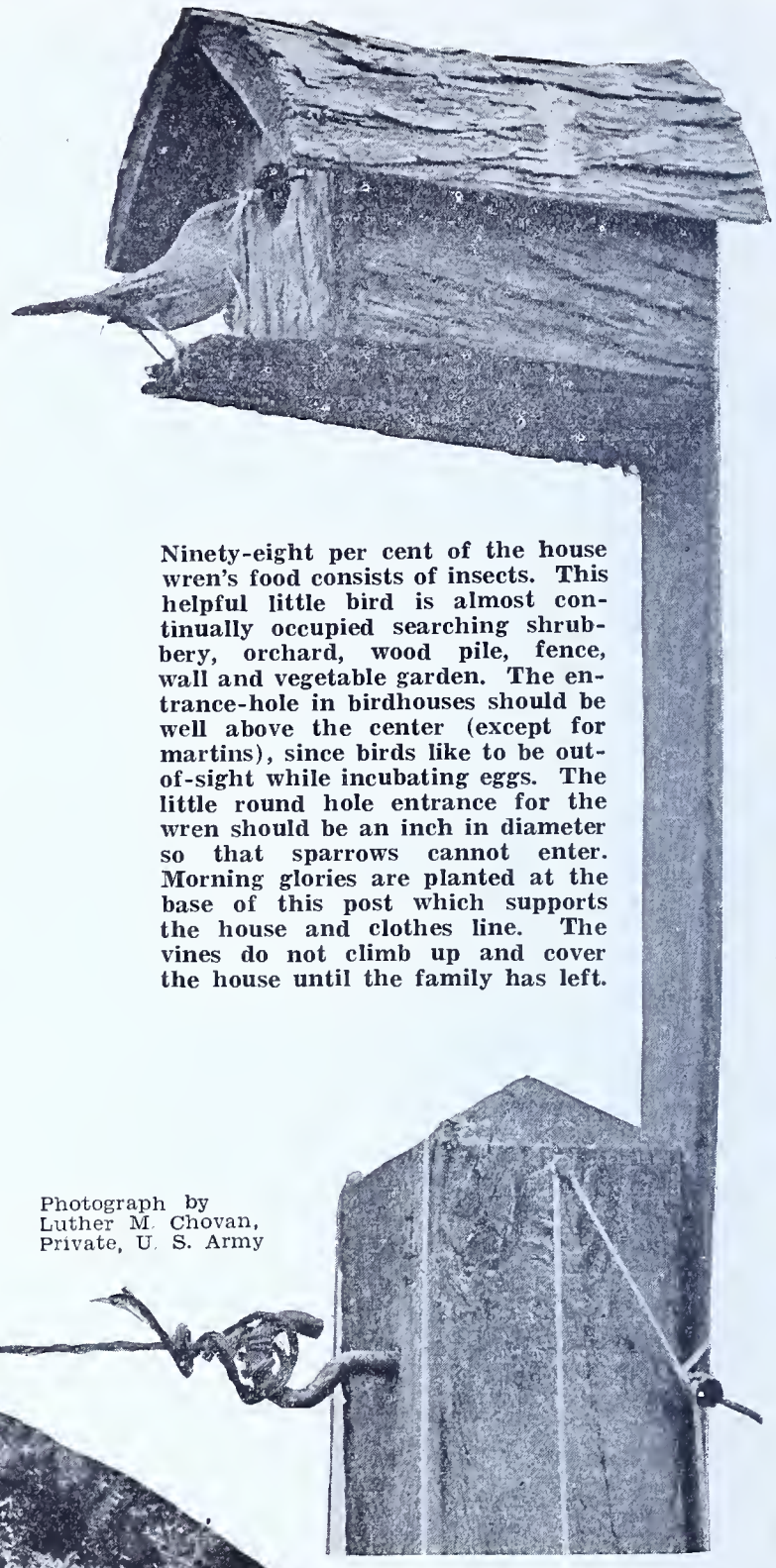
Ornithological literature is full of examples of the practical value of birds. California orchards have several times been saved from outbreaks of cankerworms by Brewer's blackbirds, which flocked to the rescue and cleaned up the pests. In Colorado, red-winged blackbirds have saved crops of sugar beets from "beet worms." At Wareham,

Massachusetts, robins made a short work of cleaning white grubs out of a bog and saved the cranberries. In a single day, myrtle and blackpoll warblers cleared out a swarm of plant lice which had threatened the poplars in Concord, Connecticut. Meadowlarks, in the state of Washington, vanquished a cricket outbreak. On a Maryland farm various species of the finch family swarmed where smartweed formed a tangle on low ground, and fed upon the seeds. No smartweed was found there the following year. The records of actual observation of local control of insects by birds are numerous enough, but there are doubtless thousands of cases where birds have quelled infestations before damage was done, or checked local outbreaks where there was no naturalist on hand to observe, investigate or report the situation.

Most famous of all accounts goes back nearly a hundred years. In 1848, the Mormons were saved from starvation when hundreds of thousands of gulls flocked to their settlement just in time to save their crops from hordes of black crickets. The gulls were practically canonized by the grateful Mormons and were given protection both by public sentiment and law. A statue to the gulls stands in Salt Lake City.

But let me give you a modest first hand example from my own home in Berkshire Hills in Massachusetts. The birds didn't save us from starving, but they did save considerable bug spray and backache.

Last spring we planted our first vegetable garden. Measuring about 25 by 50



Ninety-eight per cent of the house wren's food consists of insects. This helpful little bird is almost continually occupied searching shrubbery, orchard, wood pile, fence, wall and vegetable garden. The entrance-hole in birdhouses should be well above the center (except for martins), since birds like to be out-of-sight while incubating eggs. The little round hole entrance for the wren should be an inch in diameter so that sparrows cannot enter. Morning glories are planted at the base of this post which supports the house and clothes line. The vines do not climb up and cover the house until the family has left.

Photograph by
Luther M. Chovan,
Private, U. S. Army

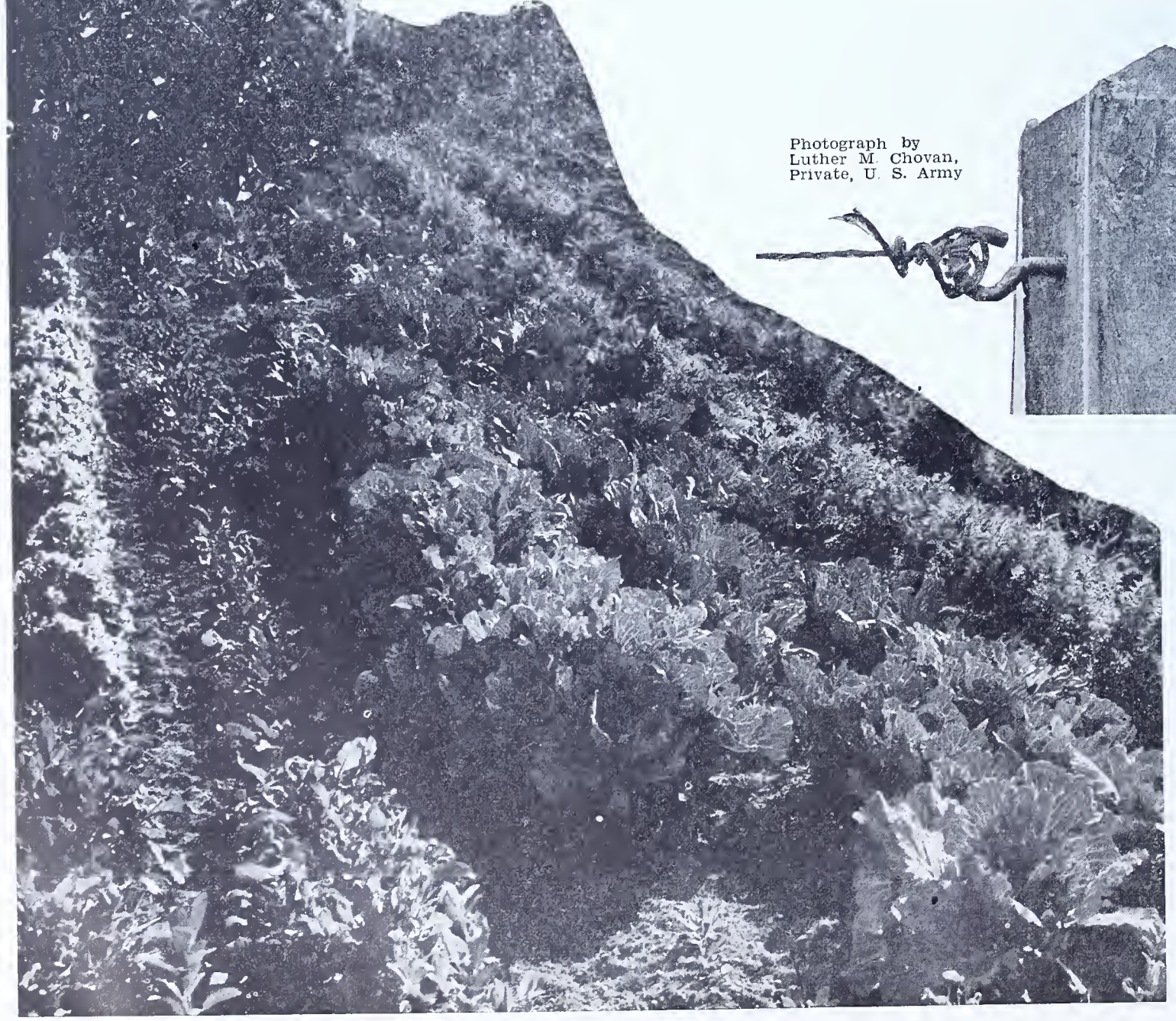


Photo by
Farm
Security
Administration

The birds will protect your vegetables from insects, if you will give them half a chance

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Audubon Magazine



The tireless chickadee will conduct insect patrol all winter as well as summer. So far as is known, these delightful birds have no harmful habits.

feet, it is surrounded on three sides by alders, three species of wild cherries, and a jungle of raspberry and blackberry bushes. It would be natural to expect that we would have a large population of nesting birds. We had a waiting list for our half dozen bird houses of simple, inexpensive construction, and the birds themselves put up numerous low cost housing developments—you could find them hidden in every other bush and tree.

Six-legged pests, or their agents, undoubtedly inspected the garden, yet we had no damage from insects or reasonable facsimile thereof. The reason was obvious—every time we walked into the garden up would fly from six to fifteen or more birds—robins, catbirds, wrens, warblers, song sparrows and perhaps a brown thrasher or two.

One reason for our success in having our garden patrolled by birds is that all of our bird houses have been occupied each of the three years we have been at our present home. The houses were of the correct design and construction, as recommended by the U. S. Department of Agriculture and the National Audubon Society, and they were placed, not where we thought they would be most attractive, but where the birds would be most likely to occupy them. It is a mistake to erect gaudy, fancy houses, and generally it is a waste of effort to fasten the boxes in dense shade, or in the middle of a thicket. Our feathered garden assistants enjoy sunshine, and while they like their homes near shelter, they also want them in the open. If you are to have the early bird get the worm, remember that it's the correctly placed house that gets the bird!

Of course, your unornithologically minded neighbors may say that birds do more damage than good; they have actually seen birds pecking at strawberries, stealing cherries or pulling up the corn. It is far easier to see a robin eating cultivated fruit than to notice the same bird devouring cutworms with equal enthusiasm. Being human, most of us are more likely to become excited when we discover that a small bird has pricked holes in our choicest grapes, than when we read that a common warbler, the northern yellowthroat, has been seen to eat 52 caterpillars of the notorious gipsy moth in a few minutes, or that another common warbler downed 80 plant lice in 60 seconds, and that a pair worked at this rate for 40 minutes!

An insignificant number of birds do more harm to man and his interests than good; a large number do damage on occasion, but repay it with interest. And a minority—the chickadees, for example—are entirely beneficial. To obtain the best results from birds, a little cooperation on your part is necessary. Mulberries, wild cherries, wild raspberries and blackberries planted especially for them, will prevent them from eating too much of your cultivated fruit. Elderberry, shadblow, blackhaw, dogwood, mountain ash, tupelo, juniper, Virginia creeper, honeysuckle, sassafras, spice bush, barberry, and plants of the viburnum and cornus group provide food for birds in various seasons and are sure to attract birds to your area.

Besides food, birds need a place to nest, protection, and water; these can be supplied by victory gardeners with little effort or cost.

You may have to do a little proselyting among your neighbors who, for the first time, are also securing their vitamins with a hoe, rather than with a can opener, and who might have a tendency to become excited if they see a bird eating something intended for human consumption. Be tolerant of your neghbor's ignorance, but very persuasive about the birds until such time as he is willing to admit that while some birds labor for the love of it, others should be allowed to modify a diet of bugs and beetles with an occasional taste of fruit or vegetables. Just remember that the birds in your bushes will keep the bugs off your beets, if you give them half a chance!

Forestry and Wildlife Management



Such a condition will mean over-browsing of the forest growth which is injurious to the forest and in the end, starvation for the deer.

OCCASIONALLY people interested in wildlife have expressed a fear of possible disturbance to wildlife in woodlands if forestry operations were carried on. On the contrary, good forestry creates conditions much more favorable to an abundance and variety of wildlife than either the mature virgin forest or the abused, burned-over and neglected types of woodlands familiar to us during the recent past. The main requirements of wildlife are: diversified and natural foods, good water supplies, shelter, sunlight, protection from enemies and a place to raise their young to maturity. Many of these requirements tend to be supplied through openings and brush heaps, the intermingling of evergreens and deciduous trees brought about by routine weedings, thinnings and cuttings of the forest crops. In recently planted forest areas there is also present for several years a tangle of berry-producing shrubs and vines of value to wildlife. Accepted forestry practices need be modified only in very minor details in order to maintain woodlands in the best possible conditions for wildlife and forestry. In this way the greatest use of the land can be maintained. The location of game refuges, the annual harvest, and the control of predatory animals in forest areas are matters of game policy and administration.

Many Species of Wildlife Are Dependent on Forest Lands

From studying European records, we find that wildlife of the forest was afforded protection so that the nobility and wealthy might enjoy the hunt to the fullest. Today, in parts of Europe, wildlife is managed as one of the forest resources. In the United States we are all nobility from the standpoint of hunting game, as every citizen has the privilege to enjoy the sport of hunting. The importance of the proper relationship between the practice of forestry and the management of wild game and other forms of wildlife has increased far beyond what was thought possible twenty-five years ago.

With higher standards of living in the United States, the use of our forests for recreational purposes, including hunting, is going to increase by leaps and bounds and, quite justly, the public will call more and more for as large a crop of as many kinds of game as possible. This will mean very definitely that unless adequate, scientific wildlife management is initiated, and unless such management is coordinated with the proper treatment of the forests for timber production, there is apt to be a clash between the interests of the foresters and those who are interested in game management.

About forty years ago the multiple-use idea of forest management was promulgated. That idea brought out the plan that all uses of forested areas should be considered and so correlated that the most benefit will result to all people concerned. In some instances, timber production may be the most important management phase of a forest. However, in states like Pennsylvania, Michigan, Wisconsin, and others, where the state owns many thousands of acres of forest land, especially the game departments, forests for timber are secondary and wildlife is of first importance in the management plans.

Wildlife, from the viewpoint of environment, may be divided into four general classes as Farm Game, Forest and Range Game, Wilderness Game, and Migratory Game (American Game Policy, 1930). Wildlife included in the Forest Game class are the deer family—moose, elk, and deer—some species of grouse, turkeys, gray squirrels, raccoons, other fur-bearers and predators. Range Wildlife includes animals of the plains such as bison, antelope, jack rabbits, prairie chickens and others. Farm Game species included bob-whites, ring-necked pheasants, European partridges, fox squirrels, and cottontails. The Migratory species are mainly our ducks and geese and these seek coastal waters, rivers, inland lakes, and marshes for resting, feeding, and breeding sites.

The forest provides a suitable habitat for many non-game species, such as song birds which destroy insects that otherwise would destroy the forest products. Also, the forests, by their shade and waterholding qualities have an enormous direct influence in maintaining both the continuous flow and proper temperatures of streams, both so essential to aquatic life.

Forests, especially our National Forests, are used for a wide variety of purposes. These may be enumerated as follows: recreation and scenic values, reserve stands of timber and sustained yields of the same, grazing by domestic livestock, watershed protection, and as environment for many species of wildlife.

Properly managed forests call for the utilization of mature timber and the handling of the forests on a sustained yield basis. This does not mean the cutting of entire forests at one time but an orderly harvest over successive blocks. This has a tendency to create openings. Sustained yield for wildlife is a desirable objective of any balanced land-use policy. In order to accomplish this aim, the manager must know the population trends on the area (census), the sex ratio of the various populations, the number of young per litter or clutch per season, and the production of animals per unit of area.

In attempting management of any area, census becomes important. We are just learning methods to census the various game species. A census technique suitable for the enumeration of grouse will not work satisfactorily on deer. Each animal requires the development of a separate technique.

Silviculture as Related to Wildlife

In the practice of silviculture, we have the key which unlocks the door for the best use of forest land for wildlife and timber production. The extent of correlation between silviculture and utilization will determine how much wildlife production may be needed. The way the forest is handled in utilization will have a lot to do with the amount of food, cover, and other requirements.

By P. F. English

Openings in the forest provide game with places to sun themselves, which tends to maintain health. The openings also allow plants such as berries, and other perennial food plants to grow and provide food and cover. Some natural openings in forests should be allowed to remain in that status and not be planted to trees. Many small openings are more satisfactory for game than just a few large clearings. Animals inhabiting the forests usually show a preference for edges. Solid stands with closed canopies do not provide suitable living places for many species.

Cuttings of various types in forests may be so done as to benefit wildlife and at the same time, not interfere with good forestry practice. Weedings, for example, are made in a young stand, for the purpose of freeing some trees from others of a similar age. They may be undesirable in form or species and might overtop crop trees or desirable species. When making such cuttings, many shrubs valuable as food for game should not be cut during the weeding program. By removing certain trees, and opening the canopy, sprout growth, which also produces wildlife food in the form of buds and browse, is encouraged. This operation provides food for deer, grouse, and rabbits.

Thinnings are made in immature stands so that the rate of growth of the remaining trees will speed up and increase the production of the entire stand. This type of forestry also aids wildlife by allowing a greater variety of herbaceous vegetation to come in. It must be remembered that in handling the forests on a sustained-yield basis, that a more or less even distribution of age classes is desirable, just as a proper distribution of cuttings is desirable. Rotation of cuttings on a systematic basis in forests that have a proper distribution of age classes will be beneficial to wildlife.

Clear cuttings, when once put into operation by a management plan, will be extremely beneficial to wildlife if they can be made small and widely distributed over the area. When an area is clear cut, certain plants are released such as annuals, perennials, fruit producing shrubs, vines, and others plus a large amount of new sprout growth. Naturally the limiting factor on the distribution and size of these openings, must be worked out on an economic basis. Many factors such as topography, kind of logging, prices obtainable for the products and costs must be considered. If few clear-cut openings are made in an area, a situation is created where the animals drift into the newly provided opening and may be harmful because of the concentration of game. These factors also make it impossible to set up any one plan that will be operative over all areas.



Brush piles are widely used by game animals, and if properly placed need not produce too serious a fire hazard.

The wildlife manager must always consider the fact that the best method of handling the forest tract may not always be best for wildlife. Any degree of cutting in closed stands of even age is better than no cutting at all.

Game administrators must be sure that a proper utilization (harvesting of surpluses) of the various animals is provided for. If an overpopulation of deer inhabits a forest tract, the herd will be detrimental to the forest and to the deer themselves. Such a condition will mean over-browsing of the forest growth which is injurious to the forest and in the end, starvation for the deer, and destruction of the environment for snowshoe hares, grouse, turkeys and other species.

In a well-balanced forest management plan where the multiple-use factor is considered, the man supervising the cutting operations will issue instructions to preserve an adequate number of mast and den trees. Small numbers of hickory, some species of pine, beech, oak, and butternut which produce food in the form of mast or seed, should be left on each acre of the land to be cut over. Information is scant as to how much mast is produced by mature trees, but we may be safe in saying that about six to twenty such trees per acre would be a sufficient number. Den trees are beneficial and, whenever possible, the management plan of cutting should call for leaving at least one den tree per acre for animals such as raccoons, squirrels, and the various beneficial species of birds which inhabit such areas.

Brush piles are widely used by game animals and if properly placed, need not produce too serious a fire hazard. If they are constructed over a heavy, useless tree trunk, they have a tendency to last longer.

The game manager and sportsman also must cooperate in any forest management plan. Overshooting of predators, such as hawks, owls, and foxes, operations felt by many sportsmen to be beneficial to wildlife, may work in reverse for the best interests of wildlife. Such a practice may prove very harmful to the game species and also to the forest manager. The hawks, owls, and foxes feed on rodents. If the predators are reduced to a very low population, various species of mice and other rodents may build up in the forest and cause serious disruption of the environment.

Studies have shown that in areas where the predator population is low, in most cases, the rodent population is high. Rodents for the most part are seed eaters, and a high concentration of rodents such as 2000 mice per acre are harmful to forest reproduction. Also such a population would consume much food that under normal conditions would be eaten by game.

Forest lands, if properly handled, produce many of our best fresh water game fish streams. Opportunities afforded by the sport of fishing on many forest areas are the main recreational values.

It can be seen that forestry and wildlife management have much in common. Common sense management by both agencies can be readily worked out. All the plants and animals in a forest are living things. Any management procedure will affect both. We are learning more each year about the close biotic relationships, but we still have a lot to learn. For the most part, we are all pretty generally agreed that management plans should include both the plant life and the animal life.



A Bird in the Hand

By Fred Everett

BIRD shooting is to hunting what dry flying is to fishing. At least that is the way it hits me.

In both, the action is up in plain sight. All the thrills are in the open where timing and expert handling of the equipment adds sporting zest to the day. Just as the daintily floating fly contains all the expectancy of sudden action, so does the pointing dog add a tenseness to the suspense before the exploding flush.

Meet up with a dry-fly angler and you have found a real sportsman, a member of a brotherhood which recognizes neither social position nor race. Meet up with a nimrod with a real bird dog and you have found the same type of real sportsman.

Even among such fine sportsmen, there are a few who seem to rise above the others. It was my good fortune to go on a quail hunt with one of the few. Ever since that day, I have wanted to tell the story so that others might pause for a moment, as I have so often done, and ponder the philosophy of Alex.

Most of you know Alex. He's just an ordinary guy like you and me. You've probably read some of his stories or heard him talk about conservation. If you have, you've wanted to read or hear more. That's always the way when a fellow practices what he preaches—you can sense the sincerity.

This is not a story of a lot of game brought to bag. It's about something more important than that. Some hunters think a bird in the hand is worth two in the bush. Personally, I'm against trite sayings. Not only are most of them senseless, once analyzed, but they are accepted and repeated because we are too lazy to think for ourselves. As a result, we thoughtlessly carry on harmful, rather than wise practices.

Take this "bird in the hand" idea. Naturally we go hunting with that in mind. And, in the long run, if we didn't manage to get a few birds in the hand, most of us would stop hunting. Our problem, then, is to make it possible, over the years, to have the two birds in the bush so that one may come to hand.

Every time I go hunting and find a scarcity of birds, I think of that hunt with Alex. Not that we didn't find birds that day, because we did. A couple of coveys of quail, not so very far from Harrisburg! The surprise of finding those birds so near the Capitol was no greater than the reason they were there.

Before this war and Alex's entering the service, we had quite a few mutual interests. Every once in a while I'd run out to his home or camp for a fishing or hunting trip. So it wasn't unusual when we planned on a day's hunt together, although, at the time, I didn't have a gun or a license. I'd hunted over Pat and Peg before and it was joy enough to see them work. And to know that somewhere in the hunt I'd find material for my work, either writing or painting. To that end, I hunted with the camera.

Friday evening we started out for the camp. On the way, Alex stopped for a couple of nice juicy beef steaks. You probably remember what they were. Who could forget that steamy smoke rising from a broiling steak, the exquisite music of its sizzling, or the deliciously tantalizing odor that filled the room? Or the liquid drops of fat blazing up out of the hot coals, licking at the crisping red meat, turning it into that rich brown crust which sealed in the rare nectar embedded in the tender tissues? Or how the red juices oozed out as your knife eagerly cut off the first ambrosian morsel and made you kin to the immortals as you tasted its soul-satisfying flavor? Are your eyes closed and are you sighing as deeply as I in memory of these extinct moments?

Pat and Peg were as glad to see us and as anxious for those steaks as we were. They so constantly got under foot that Alex finally had to charge the pointers on the porch. There they lay, noses pointed at the open door, their eyes reproachfully, yet hopefully, following our every move, their noses twitching whenever a favorable air current carried the steak-aroma their way.

That was an unusually memorable evening, we two sitting by the fire and swapping stories and thoughts. Memorable because Alex, unconsciously, impressed upon my mind a lesson in conservation practice which, if all of us lived up to it, would assure us of those two birds in the bush throughout the years to come, and a reasonable chance of having one in the hand.

I had expected, as a matter of course, that we were going out after pheasants. So I was really surprised when Alex, after a pause, suddenly remarked:

"I think the first thing to do in the morning is to go after the quail."

"Quail?" I asked skeptically, "Where in tarnation will we have to go to find them?"

Alex grinned. "Oh—not so very far. I've a couple of coveys planted where I can keep an eye on them."

"Did you put them out?"

"No—not all of them. One day I happened to locate a couple of birds, so I figured the place must be a good spot for them. It wasn't too far from here and would be a great chance to work the dogs. And so—I put in a few more birds. Whenever I can, I take the pups over there, give them a good workout and at the same time keep tabs on where the birds stay and how they are getting along.

"I don't go too often because I'm afraid the birds would be driven out of the covers. And I don't want others to know where they are until they become full established. So remember, this is just between us."

"When did you start all this?"



Illustrations by the author

"Oh—a couple of years ago. I haven't shot into them yet but expect to tomorrow. It's time the covey was broken up. Last year I managed to separate them into two coveys but am afraid they may have joined together again. Maybe some shooting will drive them further apart."

"Haven't you seen them lately?"

"No—not for a few weeks. Thought I'd wait until the season opened. I hope to find them well bunched so that we can count them and see how they have made out."

"Maybe some other hunter knows where they are and by now, has cleaned them out."

"Well—we'll have to take that chance. To tell the truth, I'm afraid of just that, so that's another reason why I haven't gone near the place lately. I wouldn't mind if a real sportsman knew about them. But so many would go in there and blast them to pieces that I'm darn careful not to hunt them when anybody is around.

"It's a darn shame most fellows can't understand that they are only ruining the hunting for themselves and everybody else when they keep at a covey until every last bird is dead. All they seem to think is, I'll get mine while the getting is good."

"I've seen so much of that, Alex, that I'm getting case-hardened. It's that way in everything. They clean out every good fishing spot instead of putting back some of the fish. Or they park in the middle of a spot where, if they had a little courtesy or thought for their fellow men, two could park."

"The worst of it is, Fred, that, actually they are swell fellows and wouldn't consciously cheat anybody. They are just thoughtless. It's a matter of the way one's mind runs. If they get into the thoughtless habit, they do those inexcusable things. Yet, if they are accused of it, they are dumfounded. A guy is a good sportsman when he gets the habit of thinking about the other fellow and of the future.

"Fundamentally we are all selfish. We look out for our own interests. One thinks it is to his interest to have the bird in his hand. The other thinks it is to his best interest to have two in the bush. They give him something to train his dogs on. And they produce more birds so that there will be more than two in the bush. Those extra birds are the ones he is actually after. Thus both are looking for birds in the hand. The difference is that the first gets only one bird and that is the end. But the second not only gets more than one in the hand, he still has the two in the bush and assurance of future hunting.

"For want of a better word, we call the second a sportsman. He is more than that, he is a wise business man—he believes in investments which will pay dividends. He know that, so long as the principal investment is in the game-cover bank, he can continue to receive interest at a good rate.

"We have no right to take out more than that interest because the principal belongs not only to us but to the other fellow and his and my descendants."

We sat quiet for a long time. Through my mind passed memories of hunting days in favorite covers. One by one these covers slipped away from us. At first they were happy hunting grounds. Then they were useless and we set out to find other covers. One after another such spots passed in review. With a real pang of regret I realized that many of them were gone forever. I wondered how many of them would still be happy hunting grounds if my companions and I had lived up to what Alex had said.

And I thought of some of the sportsmen's meetings I had attended throughout the various states, where I went to talk about conservation. How vividly I could recall the squabbles that went on about hunting and the conservation authorities and how everybody was paying too much money for the amount of game put back into the covers. With few exceptions, everyone argued that, for about two dollars, they should be able to kill at least ten dollars worth of game, birds, plus a bear and a deer. Their whole philosophy was—we want to take out—have birds in the hand. Then put in new principal and take it out before any interest had been earned.

As for the money spent on research, that was a criminal waste of the sportsman's license money. It was always over such a high-walled attitude that I had to try to present a convincing case for long-range conservation practices.

With the grown-ups it was a losing battle. They had already formed their opinions and their way of thinking was in a rut. They thought only of today. But with the younger generation, who were future-minded, progress could be made. That is why I am so strongly in favor of and have constantly fought for conservation education in the schools. Only when our sportsmen think first of the two birds in the bush and a bush for them to be in, will we begin to have true conservation.

As all evenings have a way of doing, the one with Alex passed. Before climbing into bed, we went outside for the usual rituals. The air was crisp and the stars bright, giving promise of fine weather for the morrow. I turned in, full of anticipation for the unexpected quail hunt.

(Continued on page 25)



A Review of the Ruffed Grouse

THE ruffed grouse, a native American game bird par excellence, has been honored for its outstanding characteristics by being named Pennsylvania's State Game Bird. The numbers of this bird have fluctuated over the past years with increased hunting pressure, changes in the ecological succession of the plant and animal life and the resulting changes in its environment. In the early days of market hunting, when the birds were more numerous than hunters, many a barrel of these birds were shipped to the large industrial centers where they were very much in demand as a delicacy.

In order to prevent the extirpation of this bird, conservation laws were enacted to control the bag limits and perpetuate a future supply of the breeding stock.

Status of Ruffed Grouse in Pennsylvania

A compilation of the estimated and tabulated game-kill reports for the ruffed grouse in Pennsylvania during the year 1915-1942 and the hunting license sale to residents and non-residents reveals some interesting comparisons. (Table I)

The kill figures were based on field estimates from 1915 to 1936 inclusive, while from 1937 to 1943 the figures were compiled from tabulations of hunters' game-kill reports.

It appears that approximately 227,000 grouse have been killed per year on the average over about a quarter of a century. However, during the latter half of this period, the "take" has declined and indicates a lack of sustained annual yield.

Pennsylvania Grouse Kill and License Issue

Year	No. Killed	License Sale
1915	186,344	262,887
1916	126,274	291,044
1917	112,287	316,062
1918	closed	311,768
1919	287,001	402,258
1920	425,000	433,965
1921	325,000	464,132
1922	600,000	475,855
1923	580,440	499,519
1924	330,000	504,130
1925	355,980	525,045
1926	298,196	524,042
1927	325,529	506,501
1928	150,000	438,917
1929	closed	509,926
1930	83,787	536,395
1931	176,369	581,746
1932	134,135	542,703
1933	164,285	529,303
1934	135,480	574,690
1935	190,955	614,568
1936	96,909	541,952
1937	177,683	606,618
1938	224,479	661,730
1939	237,245	662,901
1940	221,474	679,168
1941	187,990	686,356
1942	237,408	648,759

Many causes and theories have been advanced for the sudden and unexplained fluctuations of grouse populations yearly and over a period of years. Much time and effort have been expended in scientific research and practical field observations in Pennsylvania and elsewhere to determine the life history of the grouse, its food and breeding habits and possible methods whereby its numbers may be conserved, increased and sustained for recreational purposes. In spite of these detailed studies, probably less is now definitely known about the ruffed grouse than any of our other game birds.

Trend of Management Practices

By and large, there have been two schools of thought on the proper approach in solving management problems related to the ruffed grouse.

On the one hand, the doctrine has been advanced that if shorter hunting seasons, smaller bag limits, more predator control and restocking depleted coverts were put into effect, the grouse would automatically increase to the numbers found "in the good old days". In other words, the majority of the blame for fewer grouse has been placed on "Johnny-with-his-gun".

Trial and error methods in several states along this line of thought have demonstrated that many of these ideas were wishful thinking: after much experimentation with artificial propagation that was to provide the birds for restocking, it was found that this method was expensive and impractical.

More recently the trend of thought has turned to scientific research and practical field observations in order to investigate the life history, seasonal food and cover requirements, causes of early brood losses, diseases, and propagation by natural means through improvement of the carrying capacity of natural grouse range.

Among the noteworthy phases of investigations already initiated that deal with the grouse are listed: the method of censusing by King; artificial propagation by Allen, Bump and Turrell; seasonal food habits by Kuhn in Pennsylvania and by Nelson, Clark and Bailey on the George Washington National Forest; range requirements by Edminster; cycles and disease by Green and Shillinger; and life history studies by Bent King, Fisher, Studholme and others.

From these investigations and similar ones that may be carried out in the future, it is the aim to assemble facts upon which to predicate sound management policies and practices.

Grouse Requirements

In general the requirements of the ruffed grouse, although varied and not thoroughly understood, can be classified under the following headings:

1. Adequate food, cover and protection from enemies, during each season of the year.
2. Juxtaposition, with proper interspersion of food, cover and openings in forest growth to meet the seasonal needs.
3. Protection of natural food-producing trees and shrubs from destruction by over browsing, shading out, cutting and burning.
4. A correct balance among bird populations, predators and species of animals competing for food and cover.
5. Proper climate and weather conditions.

Climate and weather conditions are factors over which man has very little control, except perhaps in an indirect way. Lumbering operations, mining, reforestation and agricultural practices may to some extent affect the weather over a large area and indirectly the animal life thereon. On the other hand man can and does influence the other four factors to a great extent by land utilization

By W. C. Ryder

and exploitation of natural resources. Success or failure from a game management point of view may depend to a large extent upon the proper manipulation of the several factors involved according to the aims or objectives of those in command.

Ecological Changes in Habitat

It is quite generally believed that much of the former habitable range for grouse in Pennsylvania has been made unsuitable for normal grouse populations as a result of the forest growth undergoing a gradual change from a brushy stage to a closed canopy of the pole or saw timber type. Concurrent with this change there has been a rapid increase and spread of the deer population over much of the State during the past quarter of a century. The combination of these two factors has thus brought about a scarcity of ground cover necessary for escape and nesting and the food-producing vines, shrubs and, in some cases, trees necessary to produce the variety of foods normally taken by the grouse.

It is thought probable that the grouse populations from year to year are affected by a combination of soil, weather and climatic conditions, shooting pressure, predation, diseases and competition for food among the several species of birds and mammals inhabiting the same range.

The problem of providing a yield or shootable surplus that will even approach one of a sustained nature then becomes one of holding these factors in check by man-made measures and working in conjunction with nature.

Of course in dealing with game management in general, it is necessary to correlate management plans so that all species present upon an area are provided with sufficient food and cover so that inter-species competition is reduced to a minimum. If one species of game gets out of control by over-population, the other species suffer from the increased pressure upon the common food and cover supply.

Management practices intended to perpetuate the ruffed grouse on a sustained yield basis, without a steady decline in shootable surplus over a period of years, resolve themselves into a program of providing for the normal seasonal needs of the bird, as enumerated above.

Certainly, history has proven that a game animal needs protection from shooting during certain critical periods in its life history such as the breeding season. However, in spite of the excellent enforcement of laws on seasons and bag limits in Pennsylvania, the grouse "take" has declined, while the ringneck pheasant harvest, with perhaps a greater gun pressure, has shown a trend in reverse of this.

In the forested regions of the state, the natural habitat of the grouse, the deer population has so increased that from 1915 to 1942 the total kill of deer has approached 300,000. It is quite a well known fact that the majority of the preferred foods of the grouse are eaten by the white-tail deer in this state.

What, then, are the game management practices that should logically be conducive to larger grouse populations in Pennsylvania. The answer appears to be covered by the following three related policies:

(1) Control of the shooting of game species concerned,

(2) Control of competition for food and cover from other game species; and

(3) Control of the ecological succession of plant life, especially the food-producing species favorable to grouse.

A definite step has been made to put into effect the first two policies, but further control seems to be needed, especially in decreasing the present deer herd in certain sections of the State. Unless this is brought about, either by artificial or natural causes, then the third policy is doomed to failure in many places, as demonstrated by a recent survey.

Suggested Land Management Practices

W. L. McAtee has stated: "We can attempt to remedy at least in part our lack of land planning and our mistakes in land management by restoring misused areas to as nearly as possible their former productiveness". Also, "It (Wildlife Management)—requires maintenance of environmental conditions when they are favorable and improvement when they are not."

With these thoughts in mind and as a result of the many research projects and the practical field work already accomplished with the grouse, the following management practices, intended to increase the carrying capacity of the land, logically suggest themselves:

1. Provide natural foods by a definite timber stand improvement policy that will include release cuttings, slashings, thinnings and timber sale operations with restrictions.

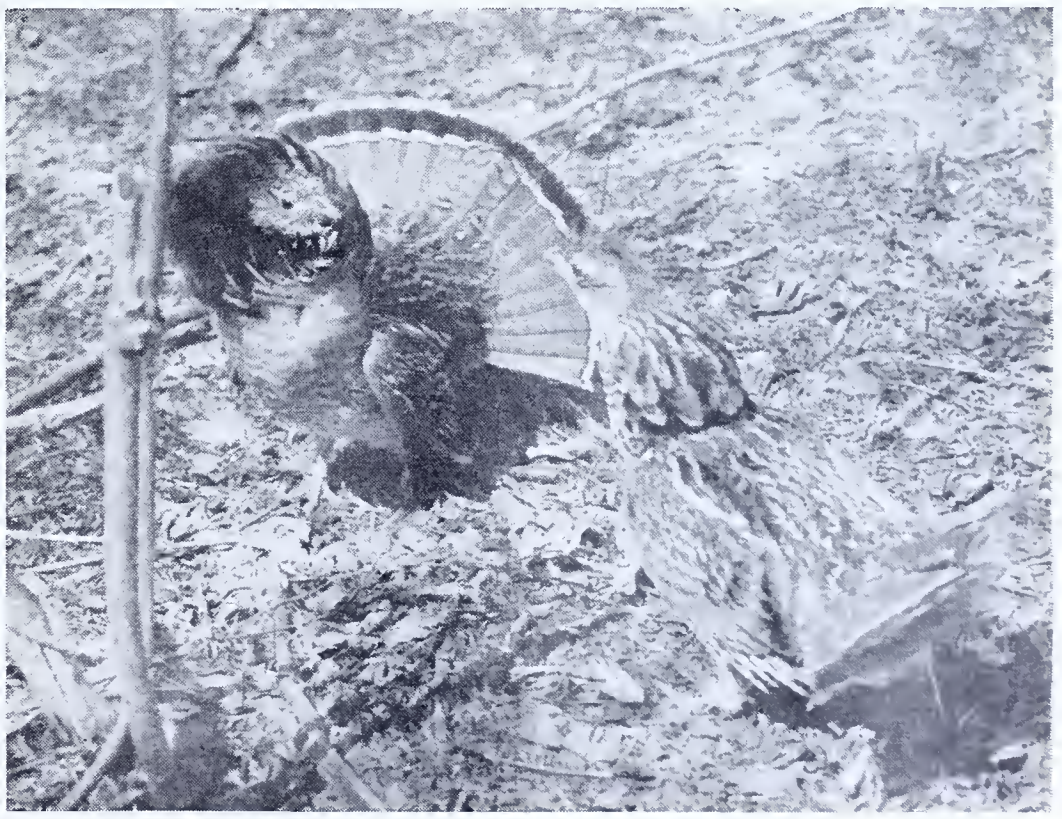
Release cuttings can be used where competitive growth of inferior species such as red maple and others are choking out less tolerant species that are needed to produce game foods. Examples of the latter are wild grape, greenbrier, Devil's Club, Juneberry, sumac, viburnums, dogwoods, hawthorns, bush honeysuckle and wintergreen.

Slashings can be made in areas where unmerchantable timber of inferior species is so heavily stocked that the understory can not thrive because of lack of sunlight. These slashed areas will serve as openings which are much needed to provide edge effect as nesting and brooding sites for the grouse. The resulting sprout growth of the trees cut will also furnish a buffer crop for other game animals that naturally compete with the grouse for food.

Thinnings of second growth timber composed of even-aged trees past the pole stage and composed of a nearly pure stand, will serve to increase the rate of growth of the remaining trees and of the total timber product. At the same time, the added sunlight and lessened root competition for soil food will allow the growth of shrubs and other valuable food and cover species, thus providing for necessary interspersion of plant life. Selective thinnings in this type of forest growth for mine props, ties, highway posts, chemical and paper wood will serve as a partial control of the ecological succession. In retaining from six to twenty mature trees per acre, principally those producing mast, it is thought that other game species in addition to the grouse will be benefited.

Timber sale operations, with diameter and species restrictions, can be conducted on areas where food and cover is lacking and where the trees are of merchantable saw timber size. Morton has stated: "The most economical, as well as the most practical, method of providing desirable game habitat in forest areas is by selling mature or marketable timber for saw logs, post and prop material, paper wood, etc., as it reaches merchantable size. In most instances other forms of cutting, as listed, cost the Pennsylvania Game Commission money. On the other hand contract cuttings produce the desired results and at the same time give the Commission a monetary return. By selling wood products on a stumpage basis, with restrictions, excellent openings can be made, berry and nut producing trees and shrubs

(Continued on page 24)



Male Grouse courting. Photo by W. L. R. Drake.



Some game birds respond readily to human kindness espccially in winter when their natural food is scarce. Here is Betty B. Abel, Nazareth, feeding a ringneck rooster.

Winter Feeding— is it Necessary?

By Helen Merritts

THE practice of winter feeding has gained impetus both from the human urge to throw crumbs to the starving birds and mammals in the cold bleakness of winter, and from the belief that artificial game feeding is the only way to insure a shootable crop the following hunting season. Such feeding campaigns have passed through two distinct periods and are now entering a third. The first were of the emergency type, used during unusually severe weather and consisting of scattering grain or other foods over the snow hoping it would be found and utilized by hungry animals. A further development included the building of permanent shelters under which food was available throughout the cold months. The latest plan, used in conjunction with the two former methods, is either to plant special food patches for the exclusive use of game or to let a certain acreage of such farm crops as wheat and corn stand unharvested near patches of dense cover. In this way, it was thought, food would be automatically supplied throughout the winter.

Now let us turn to a consideration of the necessity and the value of winter feeding for wildlife. In the two previous articles, experiments with ten species of game animals, ringnecks, wild turkeys, grouse, Hungarian Partridges, bobwhites, rabbits, muskrats, skunks, opossums, and deer were described and it was found that of these ten species only one, the bobwhite, was subject to high mortality from starvation. It was found that the others could survive at least a week of winter food shortages even under severe conditions without apparent ill effects. Even in the case of the bobwhite, records show that exposure rather than starvation or exposure coupled with starvation caused most of the winter deaths.

Along with these tests of fasting ability, others were conducted to determine the effect of poor food conditions on reproductive ability. Here, various results were obtained. In the case of the ringneck it was found that winter food shortages had no apparent affect on egg production or fertility. However, in the case of the bobwhite, those which had suffered severe food shortages during the winter died at the approach of the breeding season for no apparent reason as the birds were in good flesh again by that time. In deer, lack of high quality browse results in a reduction of the fawn crop as well as a preponderance of females among those which are produced. But before any conclusions are drawn from these tests, it should be noted that rarely in nature are animals in top conditions when the breeding season arrives. For most animals, the mating season is in the early spring and they generally have lost weight during the winter, and in the case of mammals, are shedding their fur. Among migratory birds, mating takes place almost immediately after long tiring flights from wintering grounds to summer homes. From this information as well as from the results of the tests, it would seem that carrying the animals though the winter in good condition is not so important as first considerations would have us believe. It appears that most of the animals can go through periods of food shortage and bad weather without suffering any great reduction in reproductive powers. It is important to remember, however, that in most small game species, mating occurs when food is plentiful and thus the females have sufficient food during the breeding season to produce vigorous young.

From the foregoing information, it is obvious that a widespread winter feeding program is not necessary either to provide a shootable crop the next hunting season or to bring the animals through the winter in good condition so they will be able to breed in the spring. Not only is it unnecessary in most cases but the practice of winter feeding has several distinct disadvantages. Possibly the greatest is its ineffectiveness. For example, in spite of large scale feeding programs, winter mortality has persisted among quail. In 1935-36 on a study area where constant feeding was carried on, over 90 percent of a population of approximately 175 birds perished, and it is generally believed in spite of a far-reaching winter feeding campaign 80 percent of the quail throughout the state died that winter. It may be argued that it was the feeding which helped the remainder through the winter but, as there is no way of telling which were the fed and which the unfed birds, nothing can be said either for or against that argument.

Artificial feeding has been advanced as a method for relieving starvation among the deer, but a consideration of the deer's food habits shows the impracticability of such a procedure. Deer are browsers. They depend on twigs, leaves, buds, and bark for their main food and while they will supplement their diet with grass, they cannot live on pasture alone. Wisconsin has tested various foods in connection with this problem but was unable to find any combination of foods completely satisfactory. Deer cannot live on hay or fodder as do cattle, and alfalfa sometimes "balls" up in their stomachs, plugging the intestines. Therefore, scattering these crops about to prevent either starvation or malnutrition in deer is grossly ineffective.

Editor's Note: This concludes a series of articles on winter feeding condensed from Research Bulletin No. 3 titled "The Place of Winter Feeding in Practical Wildlife Management" by Richard Gerstell, Chief, Division of Propagation and Research. We hope they have been instructive and informative.



A game food and cover plot in early Fall.

A second disadvantage is the ineffectiveness of the systems of feeding which are used. Planting of food plots was a step in solving the problem in a logical manner, even though it leaves much to be desired. These food plots are intended generally for the winter use of game birds but all too often before these birds need the food contained in the plots, other animals have utilized the patches completely or else a heavy snow has covered them. Grain made available for turkeys in feeders is taken by squirrels, mice, rabbits and other birds long before the game birds have need of it. True, this is not a complete loss but, it is a failure as far as the turkeys are concerned. Needless to say that grain scattered loosely about in hopes that game will find it is almost a total loss.

A third disadvantage is that large scale feeding programs are nearly always impractical. To procure and distribute the food needed to feed any large number of animals for just a week would be almost impossible, especially in the kind of weather when feeding is advocated. For instance, let us assume that there is a total population of 1,000,000 pheasants, not uncommon in the prairie states, with an average of 50 birds per square mile. To feed only one-half of them for a full week would require that roughly 125 tons of feed be spread over 7,500 square miles. This is an almost impossible task in ordinary weather let alone during winter snows and winds.

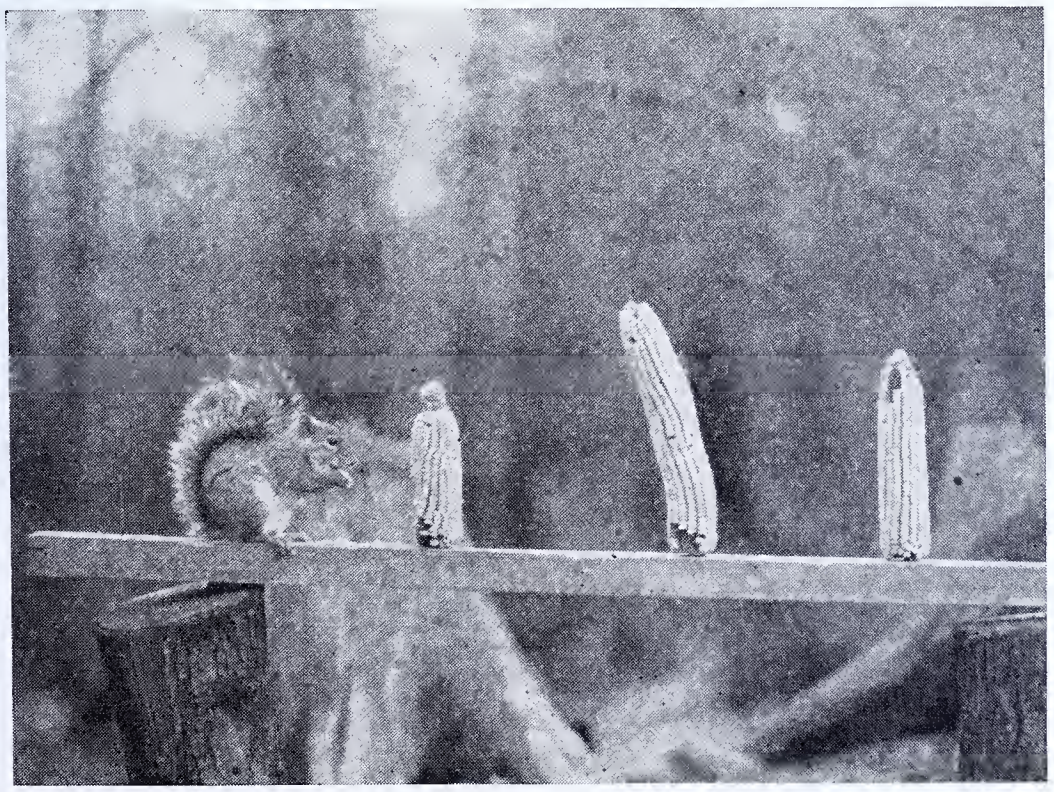
Another disadvantage of artificial feeding, perhaps not as pronounced as the others, is that it tends to reduce the wildness of the creatures so fed. Naturally, anything which modifies the inherent wild strain of game is discouraged since any degree of domestication greatly reduces its sporting value.

However, despite the disadvantages of winter feeding, there is one important advantage which must not be disregarded; that is its educational value. That value cannot be overestimated. As was stated previously, one of the most natural human impulses is to provide food for the starving birds and mammals, particularly during "spells" of bad weather. It is a simple matter to promote general interest in a feeding program. Once this interest has been aroused through press and radio appeals, it is relatively easy to keep it burning. Public interest in winter feeding provides an opportunity to develop a desire for a greater knowledge of wildlife and of the out-of-doors in the minds of many people. It is upon this foundation that active cooperation in general conservation programs is founded. Winter feeding programs furnish excellent opportunities to further promotional conservation plans.

Another advantage can also be noted although it is relatively unimportant. Artificial feeding may be used to hold animals in certain localities such as private shooting preserves or, conversely, to bait them into refuges if the crop will not stand hunting pressure. Of course, there are rare instances when winter feeding can be used to save small populations of birds or mammals which might otherwise be lost. These unusual instances are strictly local in character.

In conclusion then it can be stated that the main place of winter feeding in wildlife management is in its publicity factor. Experiments have shown that with the exception of the bobwhite, most animals can survive the Pennsylvania winters without artificial feeding although the usual losses from exposure will occur.

Since most of the present methods of feeding have proved to be ineffective and impractical, all efforts in the future should be directed toward providing permanent natural food supplies and shelter as well. Trees and perennial shrubs should be planted, fence rows allowed to grow up to a natural tangle, and in general, practices followed which would result in production of permanent food and cover for game. All things considered, provision of food and cover by permanent plantings seems to be the logical solution to winter feeding problems.



A grey squirrel eating at a spike pole feeder.

In Defense of the Fox



Photo by R. H. Tuttle.

Mr. and Mrs. Cecil Rose, New Milford, with part of their fox catch the past season. Mr. Rose is not only a fox trapper, but a milk producer with a herd of 35 registered Holsteins, a large flock of chickens, and a school bus driver. According to Photographer Tuttle, who is president of the Susquehanna County Federation of Sportsmen's Clubs, around 270 foxes were taken last fall and winter within a few miles of Mr. Rose's place.

IN Bryan J. Snell's letter, February 12th issue of *Pennsylvania Farmer*, it is stated that the fox will kill anything it is capable of killing, like chickens, turkeys, pheasants and muskrats. Being a fox chaser for 20 years, and a farmer, I know that the fox does not kill all the things that he is blamed for.

If the farmer would stop to think of the field mice which are destroyed each year by the fox he would say to himself, "What we farmers need is more foxes."

If we farmers want to complain about the things that are destroyed by our wildlife we certainly could tell long stories of how Mr. Rabbit destroys our cabbage, cauliflower and many other kinds of plants, and how Mr. and Mrs. Pheasant destroy tomatoes. Mr. Pheasant does not take one tomato and feast on it, but he will destroy tomatoes by the bushel by pecking into them, yet we farmers do not complain about that.

In the 20 years I have been studying the ways and the nature of Mr. Fox I saw many fox dens but never saw all the things Mr. Snell states you would see at a fox den. I know that at times we farmers and chicken raisers will throw carcasses of chickens or turkeys into the fields and woods. When Mr. Fox comes along and sees all this fine food lying around he will naturally take it along to his house or den and then somebody will see the feathers and bones lying around, and so Mr. Fox carries the blame of killing some farmer's chickens and turkeys.—Farmer and Fox Chaser, York County, Pa.

Not so Black as Painted

I see these pieces about foxes, one time after another, by certain men, so thought I would write about what I know. I have two farms in Lancaster County, one in Paradise Township and the other in Bart.

In the first place I'll take the rabbit. I never stopped a man from gunning in my life. We planted our cabbage, went out to look and found it was cut off to the ground. Rabbits eat the stems and let the top lie. We planted the cabbage over, and things kept on the same way until we planted three times—and had to buy cabbage in the fall! Rabbits also eat red beets. When my wife came in from viewing their operations in this respect she was really mad, but I still protect rabbits.

Next we come to the pheasants. They go up to the tomato patch, ruin bushels, pick holes in the tomatoes. Then the watermelons—pheasants pick holes in them. But the worst of all is the damage they do to raspberries. They come in flocks, and do they love good ripe raspberries which they eat until the juice runs down both sides of their bills! I still make no kick with all this stuff doing damage. You take a polecat; he will kill a chicken that is half grown. That I have experienced.

Now we come to the fox, of which I think I have handled as many as the common run of people. I read in a newspaper where a poultryman says foxes eat lambs. Now I would like some one to show me the man who ever saw a fox kill a lamb.

If I had an old black hen die 25 or 50 years ago and a fox came along and picked her up and took her over to a rock and ate her, and I found the carcass, or if I upset a can of milk, do you think I would still keep on crying over it that long?

In my experience the grey fox is pretty destructive. He travels only about two or three miles from where he belongs, and he hangs around and kills what he can. I have been killing the grey foxes. But the red fox is entirely different. He is here one time and in an hour he may be six miles away. The red fox is not so destructive, but if it has little ones close to a farmstead—it will visit that place more often. If you find the den and burn paper in the hole the foxes will leave. But if it is an old kind of tame fox it should be killed.

On my farm I have a pack of hounds. We strip our tobacco through the winter and when we have time and it comes a good day we saddle up Old Dobbin and go out for a hunt, one of the greatest sports of the farm.



Mr. A. E. Murphy, Turtle Point, McKean County and daughter, Marietta, with a couple of Reynards bagged last fall.

Pros and cons on the Fox problem as expressed by various people in the March 25, 1944 issue of The Pennsylvania Farmer

I buy a kennel license for my dogs, pen them up in March and don't let them out until the tobacco is cut in the fall. So if we cannot protect the red fox anywhere else we will protect it on our own farms, for I never knew of a fox to kill a chicken on my farm and there have always been foxes around here. That is not saying foxes will not kill chickens but if people would pen their chickens up at night they would find very few of them killed.—Jonas Simpson, Lancaster County, Pa.

An Important Animal

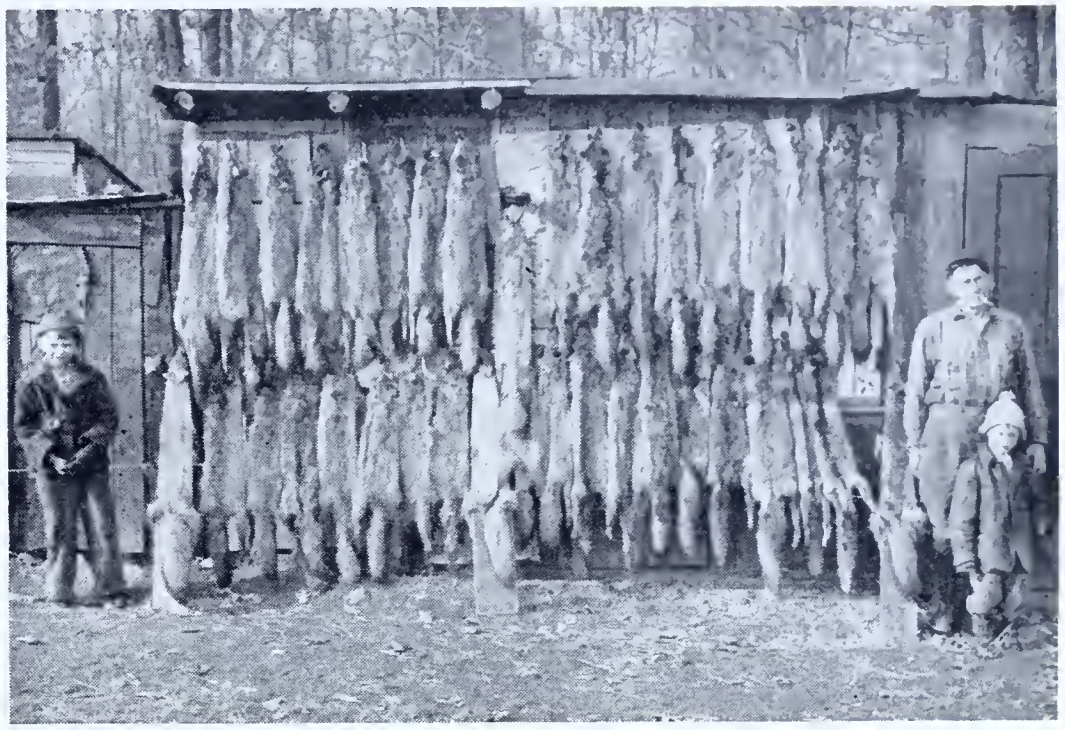
I am a farmer, not much interested in the game or foxes as far as hunting is concerned, but ever since I can remember foxes have been plentiful, and that is more than 25 years. The trouble with the game is too many hunters. When I was a boy I packed a gun over the hills and there were plenty of rabbits, quail, grouse and foxes, but gun hunters were scarce. I have hunted all day long and not seen a hunter. Today I have watched in hunting season five or six hunters come into a field, and they would hardly get out when another bunch would come into the same field.

In many respects I think the fox is an important animal for the farm. It keeps pretty well under control the mice that are so destructive on meadows and fruit trees. I don't hear farmers complaining about foxes taking their chickens, and the poultrymen keep their poultry in some kind of inclosure so foxes cannot get at it.

The game side of the question is of no interest to most farmers. Game is destructive. The rabbits will girdle your apple trees, cut plants, beans and peas. The ringnecks will pull up your corn and rob birds' nests. Then come the deer—farmers who live in deer country can tell you about them.—L. W. A., Fayette County, Pa.

Fox Drives

In the March 11th *Pennsylvania Farmer* I noticed a letter, with the initials J. R. S., telling about the way foxes are killed in Ohio. After seeing pictures of this barbarous method in the March 13th *Life* Magazine I certainly hope Pennsylvania never disgraces itself by adopting this needlessly cruel and brutal system of fox extermination in which the wounded and helpless animals, when cornered, are slowly clubbed to death by men, women and even children.



Bill Fagley, Clarion, with a 2 week fox catch made in that county last fall and winter. He says he took 41 reds and 18 grays on his 40 mile line, trapping only part time.

Many of my relatives, neighbors and friends join with me in expressing the hope that this revolting scene can never be repeated in our own state. If it ever is, we would be thoroughly ashamed to admit being Pennsylvanians.—Ellene Arneister, Philadelphia County, Pa.

Favors Five Dollar Bounty

In regard to the fox, I think there should be a bounty the year around on both red and grey. The fox is a nuisance to the farmer. Last year I found one red fox den, and you ought to see what they had caught for their young. There were nine lambs, and any one of them would have weighed 10 to 15 pounds. And there were rabbits and chickens, squirrels, birds of all kinds, groundhogs, skunks and opposums.

I was tracking a skunk this winter. After I had gone a little way I came to a place where two fox tracks joined the skunk's track. They followed the skunk for a mile or so and there is where they caught it. They ate it, all but the scent. You know what I mean.

Last year my cousin and I were tracking a skunk. Mr. Fox caught up with the skunk. What did he do to the skunk? He ate it up, root and stump.

There is a piece of land close to me where there used to be hundreds of rabbits, and today there are hardly any. There are no quail or pheasant at all.

We have farmers who won't let you hunt on their land and there is where the foxes get so thick that people cannot raise chickens for the red gent. I say there ought to be a bounty of five dollars on both red and grey fox.—Farmer, West Virginia.



A nice bag of gray foxes killed chiefly in the farming sections of Montgomery County. All were killed over the dogs shown in the photo. Notice the little "creepers" in the arms of the two end men. Left to right, standing, Horace Bower and Norman Moyer, Skippack, and kneeling, E. W. Kehs and David Auchy, Schwenksville.

Quiz Program

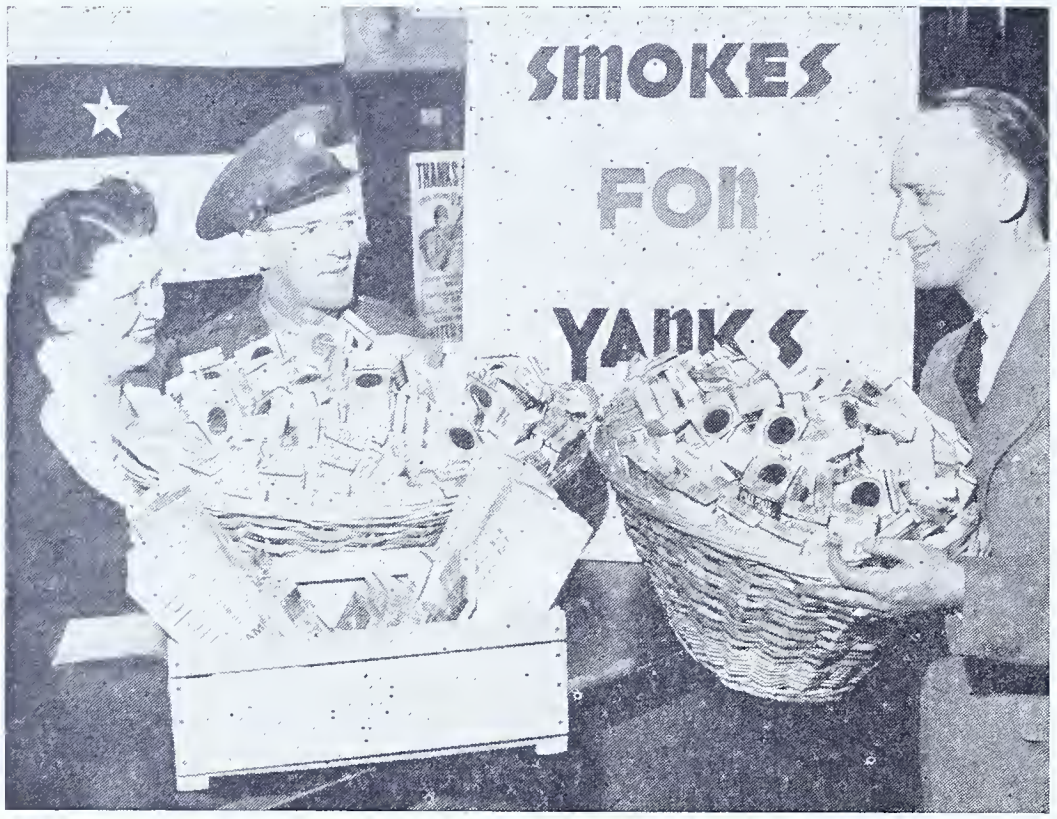


Photo Sunday Call-Chronicle, Allentown.

Members of the Lehigh County Fish and Game Protective Association, Allentown, contributed 1,034 packs of cigarettes in the third annual "Smokes for the Yanks" campaign. Above they are being turned over to the Lehigh County USO by Lawrence W. Knoblach, immediate past president of the sportsmen's association and originator of the idea. Hostess Madelene Trumbower at the USO Servicemen's center and Private Edward Barnes of the Allentown Induction center are all smiles as they receive the contribution. The present membership of the Allentown sportsmen's club is 2,197 of whom 268 are in the service.

Editor's Note—In April we carried an account of the Quiz Program conducted by the Fort Pitt Brewing Company under the auspices of the Allegheny County Sportsmen's League. Following are some additional questions and answers accruing from that novel program. More will be published from time to time. We invite others to submit questions also. Just send them to The Editor, GAME NEWS, *Game Commission, Harrisburg, Pa.*

Q. You made a statement on your Sportsmen's broadcast that "Does do not eat oats." I am not springing to the defense of the gentleman who wrote the song, although maybe he needs to be defended; but when I was a bit of a lad I had ten or twelve doe's in a pen and the major portion of their food consisted of oats, and they ate them with relish. Of course these doe's were lady rabbits, if that makes any difference.—Colin Reed, President, Pennsylvania Federation of Sportsmen's Clubs.

A. The fact that the "does" were lady rabbits does make a difference, Mr. Reed. Deer, the females of which are also referred to as does, while they will eat grains, are primarily browsing animals and depend upon twigs, leaves, buds, and bark for their main food. Although they supplement their diet with grass, they cannot live on pasture long.

Q. How many elk, if any, are there in Pennsylvania today?—H. L. Smith, 1225 Evans Ave., McKeesport, McKeesport Sportsmen's Association.

A. Roughly the herd numbers around thirty, if it really is that large. Only 98 legal animals were taken from the time the first season was established in 1923 until 1931 when they were put on the protected list.

Q. Is it true that Pennsylvania was the first state to give protection to the black bear?—W. C. Wable, North Side Sportsmen's Association.

A. Yes, in 1905; it was also the first state to protect cubs, in 1925.

Q. When were bounties first paid in Pennsylvania, and on what animals or birds?—Charles Hanable, North Side Sportsmen's Association.

A. Bounties were first paid on squirrels in 1750 at the rate of three pence a head. Those were the days when claims had to be approved by a representative of the Crown. Later, in 1885, bounty was paid on hawks and owls at 50c each, the act authorizing the award being subsequently referred to as the "Scalp Act." Over 18,000 of these birds of prey were killed in less than two years. Under the Scalp Act bounty was authorized by the County Commissioners and claims were paid by County Treasurers. Other early day bounties included $10.00 for wolves, $2.00 on wildcats; $1.00 on red and gray foxes; and 25c on minks, in 1887. Present bounty rates include $4.00 on the gray fox, 50c on the weasel, and $2.00 for adult and $1.00 for fledgling Goshawks from November 1 to May 31 next following.

Q. What is the present aggregate area of State Game Lands?—Horace Ault, 709 Johnson Ave., Pittsburgh, Hazlewood Sportsmen's Association.

A. At this writing (April 14, 1944) the Commission owns 747,986 acres of State Game Lands and has over 70,000 more under contract for purchase.

Q. Can and will the Game Commission aid the sportsmen in purchasing ammunition for this year's hunting?—Frank Jurczak, Sec.-Treas., Ambridge Sportsmen's Association.

A. The allocation and distribution of ammunition for hunting purposes is entirely up to the War Production Board and while the Commission, along with conservation departments in other states, can and has appealed to that federal agency for a more liberal supply of ammunition for 1944, it has positively no say or jurisdiction in the matter whatever.

Q. There was a scarcity of pheasants in my pet hunting territory and other points I hunted during the past season. To what do you attribute this scarcity?—J. B. Whitlinger, 1483 Park Blvd., Dormont, Pittsburgh.

A. Unless I was familiar with the areas you mention it would be impossible to say what of many or combined factors may have depleted the pheasant supply in them.

Q. Are local taxing authorities reimbursed in any way for the taxes lost when lands purchased by the Commonwealth for use of the Game Commission are removed from their assessment lists and payment of taxes is not required by the Commonwealth?—Rudy C. Kirmeyer, 230 East Elizabeth St., Hazlewood, Hazlewood District Sportsmen's Association.

A. When lands purchased by the Game Commission are removed from the assessment list for county road and school taxes, the Game Commission then pays to the respective county, road, and school taxing authorities a fixed charge per acre. This is 1 cent for each acre to the County Treasurer, two cents for each acre to the Treasurer of the School Board, and two cents for each acre to the Secretary of the Road Supervisors of the Township in which the land is located. This payment is made yearly. For the year 1943, the Game Commission paid $36,611.34 in fixed charges on its land holdings in the State.



Nathan L. Timmis went bear hunting last November with Homer Coxson, of Wyattville, and came home with a coyote, which he killed in the vicinity of Heart's Content. The animal weighed about 45 pounds.



Photo by Bob Frederick.
Nathan Guth, Allentown, is a past master at bagging 'chucks. In 1941 he bagged 52 but someone didn't believe him so he saved the tails of the 83 he killed in 1942 to prove his skill. Last season, due to war work, he collected only 18. He uses a .22 with a Lymann Scope. Says he knows of one, after being shot through the heart with a hollow point, to run 20 yards before falling.

Q. Do fish in our Pennsylvania streams, if frozen solid in the ice, live after the ice thaws and the fish are free again. Or do they die if they are frozen solid. Do the fish live under the ice if the stream or water freezes over?—David M. McElhaney, 951, 57L Ave., Freedom.

A. According to the records of the Fish Commission the only species of fish which has survived after having been frozen solid in ice is the goldfish. It is a very unusual thing and according to Fish Commissioner C. A. French all fish common to Pennsylvania, if frozen in ice, would be dead when the ice thawed.

Q. Is it legal to hunt crows on Sunday and at night?—James A. Gorman, 214 Harrison St., Glassport, Pa.

A. Yes, insofar as the Pennsylvania Game Law is concerned, but the hunter must be in possession of a proper hunter's license and display the tag on his back.

Under the old Blue Law, which is now Section 699.4 of the Penal Code of 1939, any Sunday hunting, shooting or similar diversion is punishable by a fine of $4.00 or 6 days' imprisonment. Although this is not a game law, and is therefore beyond the immediate jurisdiction of game protectors. we question whether there will be any objection to Sunday hunting to such a limited degree that it will not disturb the sanctity of the Sabbath. We recommend that before engaging in any Sunday shooting, you first obtain consent of the residents of the immediate community in which the shooting is to be done. If local residents have no objection, it is quite doubtful whether any legal authorities will interfere.

It is legal to shoot crows during the night time. No artificial lights may be used, however, and pump shotguns are limited to three shells in magazine and chamber combined.

Q. There is a wide diversity of opinion as to a proposal providing that a separate Big Game Hunting license shall be issued, i.e. for bear and deer.

Regardless of the merits claimed by the proponents and opponents it does appear that a five dollar fee, separate and apart from the regular hunting license fee, would be a more equitable manner of treating this subject.

Do you believe a separate license fee is desirable and is a five or ten dollar fee for hunting bears and deer preferable?—C. W. McMillen, 850 Fordham Ave., Pittsburgh.

A. For a long time I have felt that there should be a separate license fee, not too excessive however, for hunting large game, and I believe the time will come when such a fee will be established at the request of the sportsmen themselves. If that time ever comes it will enable the Commission to carry on a more extensive management program in the interests of small game also, because much of the money now being used for big game management would revert to small game as soon as the separate license fees for big game became available for its use.

Q. The subject of an appropriate period for the training of hunting dogs is a constant source of controversy and it is hoped through the questions which follow that something concrete may develop from the owners of hunting dogs. Do you believe that the present period August 20th to March 31st for training hunting dogs should be revised to permit three months only of the non-open small game season i.e. from December 1 to the last day of February of the following year? Do you not believe such an abbreviated season would serve to eliminate the destruction of thousands of wild animals and birds by dogs being trained?—F. R. Kenyon, 2241½ Hawthorne St., Swissvale.

A. While an abbreviated training season may save some game birds and animals I personally feel that the numbers destroyed through training are very small. You must remember too, that while the period of training seems long, there are certain months therein when little if any is done. In these hectic days most fellows are hard put to get out at all so the longer the period the better their chances. I think we should give them a break.



Photo by A. L. Ranaldi.
A 235 pounder, hog dressed, killed last season in Lycoming County by Eugene Salem, Myerstown, who bagged one weighing around 300 lbs. near the same spot several years ago.



Ringnecks raised by the Rolfe Sportsmen's Club, Johnsonburg, from 6-week old chicks furnished by the Jordan State Game Farm. Half were released in October, the remainder wintered over. The double holding pens were made from one end of an abandoned tennis court.

Q. The crying need is on big game problems in the improvement of our deer herd so that one may shoot a deer with a real set of antlers. What is being done to bring this about?—Paul B. Fleckenstein, Perrysville, Pa.

A. The one way to guarantee larger and heavier deer is to effect a proper balance in relation to the animals and their food, and to balance the sexes properly. This can only be done by first thinning out deer where they are too numerous for their food supply and then improving food conditions as much as possible while the animals are at a low ebb. Trying to improve conditions as long as the herds are large is pure folly because the animals eat everything as fast as it is planted. The Commission has been trying to do this very thing by declaring antlerless seasons from time to time, and game protectors will tell you that invariably following such seasons bucks taken were usually finer specimens with well antlered heads.

Editor's Note: Following is a little poem we lifted from the Norristown Times Herald under the column "Sports Show" by Montgomery, which is self-explanatory.

Boisterous laughter, agreement or strife;
Tobacco smoke you can cut with a knife;
Tales of achievement by expert and dub;
You get all of these free in a sportsmen's club!

Big Game lectures—the "chase" and the "kill";
With movies for proof, you get quite a thrill,
A voice from the rear calls: "Down in front, Bub."
You get all of these free in a sportsmen's club!

APOLOGIES MR. DRESCH

We wish to take this means of apologizing to Mr. George Q. Dresch, 55 Grove Avenue, Oil City, for failure to credit him with the fine little poem on page 32 of the April issue entitled "Wise Old Sport."

★ ★ ★ CURRENT TOPICS ★ ★ ★



Mr. John C. Herman

New Commissioners Appointed

Last month we could do no more than announce appointments and extend a welcome to two new members who were appointed to the Commission by Governor Martin on April 13, namely, Mr. John C. Herman of Dauphin and Dr. Carl B. Rosenkrans of East Stroudsburg. This month we introduce them officially. Both are ardent sportsmen, and have been close students of the conservation program in Pennsylvania for many years.

Mr. Herman, ever since a mere lad, has spent a large share of each hunting season in pursuit of various kinds of game in Pennsylvania. In fact, for a number of years past it has not been unusual for him to make hunting excursions into the northeastern states, where the season begins earlier than it does in Pennsylvania, to hunt ducks and other game, then spend a large part of our season in the field, and following the Pennsylvania season make occasional trips to nearby southern states to hunt. He also is an ardent fisherman as well as a hunter.

He has gotten so much pleasure out of the outdoors that one of the first things he said after being appointed, in answer to a question about compensation for his new position, was that he expects to receive a lot of criticism, but "my compensation will come from doing, in my small way, the best I can to repay some of the pioneers on the Game Commission for the fine sport I have enjoyed all these years, and to pass it on to those who come after me." To another he remarked, "I look upon my appointment as a public trust and shall do my best to discharge that trust faithfully."

Mr. Herman's affiliation with the Commission revives memories of the days when his uncle by marriage, Mr. Harry C. Stackpole of St. Marys, served as a Commissioner, 1927 to 1931.

Commissioner Herman was born in Harrisburg in 1892, graduated from the public schools and the Harrisburg Academy, and from Yale University in 1915. Immediately thereafter he associated with his father in the cigar and wholesale tobacco manufacturing business in the capitol city; later with his brother taking over the business upon his father's retirement in 1940.

At the present time he is a member of the food panel of the War Price and Ration Board and is doing active volunteer duty one day each week with the U. S. Coast Guard Reserves in the Philadelphia harbor district. He is also a member of the Mayor of Harrisburg's Post War Planning Committee.

Dr. Rosenkrans has also had a lifelong interest in sport and the affairs of sportsmen and was the organizer and first president of the Monroe County Sportsmen's Association, now known as the Pocono Mountain Sportsmen's Association. An ardent hunter and angler, he has hunted and fished up and down the country from Canada to Florida. He is a member of many hunting and fishing organizations including the Beaver Run Rod and Gun Club, Maskenoza and Sawcreek. Those who know him intimately say that when he is not vigorously pursuing his profession, in which he has an enviable reputation, he can be found along the streams and in the fields and woods engaged in either tempting the wily trout or bass or pursuing his favorite game. His ability in both these two "outdoor professions" is widely recognized.



Dr. Carl B. Rosenkrans

Dr. Rosenkrans left a fine practice in 1917 to join the United States Army and was in France one year as a Captain in the Medical Corps. After his discharge from the army he resumed practice in East Stroudsburg and built the Rosenkrans Hospital, a private institution, in 1924. He has conducted this hospital and been its Chief Surgeon since that time.

He is a member of the Monroe County Medical Society, the State Medical Society and the American Medical Association, The Lions International, Elks, Masons, American Legion and Veterans of Foreign Wars. He has been Monroe County Medical Director for three years.

The appointments of two new Commissioners together with Messrs. Ross L. Leffler, Dr. H. E. Kilgus, G. I. Phillips and Harold Motz, were confirmed by the State Senate on May 2, 1944, thus giving the Game Commission a full membership, with definitely fixed staggered terms, for the first time since January, 1939. Commissioners Nicholas Biddle and Robert Lamberton are serving under previously confirmed terms.

NOTES FROM THE FIELD

"Deer are now coming out and working on apple trees where they had not been seen all winter. Another report had them in close to homes near Franklin. They go right after aspen buds on cuttings and wade right into the brush piles. They also eat sassafras tips as well as any others. Deer food has not been hurt, and I have noticed many kinds of sprouts."—Game Protector Ralph H. Ewing, Franklin.

"On Sunday, March 19, I received a call that an injured deer was seen dragging itself in the woods along Route 19. Upon investigation I found the animal, a doe with a broken back. It apparently had been struck by a truck. I killed the suffering creature and upon opening it found two unborn twin bucks."—Game Protector George W. Miller, Conoquenessing.

"On March 22, 1944, I released some trapped rabbits in the Loop section in Porter Township along an old fence-row. One rabbit headed for the open field and when about twenty yards in the field a crow took after it. There was a close race for quite some distance. I thought the crow was going to win out, but the bunny reached another fence-row just by the skin of its teeth."—Game Protector Walmer M. Thomas, Huntingdon.

"Since the fox increase a number of hunters have resorted to dogs. Naturally this means more complaints of dogs chasing deer. In the mountain sections when a dog is heard chasing, the first thought among the farmers and sportsmen is that it is chasing deer. I investigated a number of such complaints and learned in nearly all cases the dogs were actually chasing foxes, and were accompanied by their owners. A great deal of deer chasing can be eliminated if hunters keep their hounds on leash until they reach the theatre of operations. They should not take a pack with them, especially pups or young dogs. Fox hounds should be trained, preferably one at a time, at no time over two. One bad dog in a pack will spoil your hunting for the balance of the day. Fox hunting is great sport, and if you have a little patience with your dog the deer chasing situation can be overcome."—Game Protector Fred Fisher, Mifflnburg.

"During the month of March a number of cuttings of deer browse were made in various sections of Leidy and Noyes Township in this District. Inspection afterwards disclosed that in almost all of the locations the deer ate the small branches back to a diameter of ⅜ inch on some of them."—Game Protector W. J. Brion, Renovo.

"Last August, the Rolfe Sportsmen's Club, of Johnsonburg, conceived the idea of forming a Junior Club. A committee was appointed and in due time a meeting was called, and 14 boys between the ages of twelve and eighteen attended. The following officers were elected: President, Robert Stump; Vice-President, Donald Milquist; Secretary, George Steudler; and Treasurer, Richard Glover. Under the leadership of these boys the organization has grown to a group of 40.

"In October, the use of the Central Hose Hall was procured and an open meeting was held. Game Protectors Earl Smith, Lynn B. Rosenkrans and Theodore C. Carlson gave interesting talks on wildlife conservation, and Mr. Carlson promised later to give the club some instruction in the handling of firearms and the proper method of setting traps for fur-bearers.

"The club holds regular, well attended meetings every second Tuesday under the supervision of fathers and brothers of the members. The boys have the privilege of the club house from 1:00 P.M. until 8:30 P.M., and spend many happy hours together. They are looking forward to the time when they can help stock small game and fish. At present the boys are raising money to buy feed and several dozen rabbits, and hope to have $100 for that purpose by the middle of the summer."—George Steudler, Johnsonburg.

The Delaware County Field and Stream Association held its own Sportsmen's Show on the evenings of April 5 and 6 in the auditorium of the Norwood Fire Company. It consisted of fly tying, bait casting, gunsmithing, sportsman's library, taxidermy exhibit, membership booth, conservation and restocking, trap, small-bore and pistol shooting.

"On April 7, 1944 I banded and released a cock bobwhite quail at 12:48 P.M. It flew about ten yards in front of the car from which I was working, and alighted on the edge of a dirt road. It walked into a fencerow heavily grown up with poison ivy and disappeared from view calling softly.

"As I was preparing to band another bird for release at the same spot, the bird just liberated uttered several loud, piteous notes that immediately attracted my attention. I looked about in time to see this bird flying for his life across an old corn field grown up to weeds about two feet high. In leisurely pursuit was a Cooper's Hawk. The hawk followed the quail about fifteen feet behind and about ten feet beneath and to the left. Though the quail was undoubtedly doing his best, the hawk kept pace easily making no attempt to overtake the quarry, perhaps due to the proximity of the observer.

"Both birds disappeared over a slight rise of ground about one hundred yards from me. I returned the bird I was holding to the crate, grabbed my loaded shotgun and set out at a run in the direction taken by the birds. As I reached the top of the aforementioned rise the hawk flew from the ground about fifty yards away. I fired at him twice with no apparent effect other than to drive him to complete retreat. I went on to the spot from which he had taken wing; and there was the quail, quite dead, lying on his back with his banded foot in the air. I picked him up and paced the distance back to the car. It was just 150 yards.

"This bobwhite was banded, released, killed and collected all in less than three minutes.

"The rest of this release, 50 birds in ten groups, even sexes in each group, went without incident other than noting three quail 'freeze' at the appearance of a soaring Red-tailed Hawk. These three birds were part of a six bird group that I was in the act of releasing, having one bird yet to release to complete the six."—C. R. Studholme, Research Assistant, Shippensburg.

IN MEMORIUM



Mr. H. S. Smith

Editors note: The following obituary written by the Hon. J. Q. Creveling of Wilkes-Barre, former member of the Game Commission and life-long friend of "Uncle Had" as Mr. Smith was affectionately called, fully exemplifies the esteem in which the grand old sportsman was held.

The death of H. S. Smith, of Kingston, Pa., which occurred on Easter Sunday, April 9, 1944, has taken from the ranks of the organized sportsmen of this Commonwealth a very ardent supporter of the cause of conservation.

At the time of his death, he was President of the United Sportsmen of Pennsylvania, which office he had held for twelve years. The organization which he served had its origin about the year 1908, and is a chartered institution, composed of a head camp, constituting the board of directors, and numerous subordinate camps of sportsmen, which under the law it has power to incorporate. The influence of that organization has been wide and useful in laying the foundations for the restoration of wild life and has in the course of its existence organized more than two hundred and fifty subordinate camps, each of which has contributed something useful to the general cause.

Mr. Smith was 77 years of age, a civil and mining engineer of ability. He held membership in the United Sportsmen for about twenty-five years. Being a civil and mining engineer of wide experience, he became interested in the matter of the purchase by the Game Commission of lands, and assisted in locating them in the proper places, especially in the Northeastern section of the state, lands with which he had become familiar as a surveyor. He became very much interested in the acquisition of a large portion of the North Mountain in Wyoming and Sullivan Counties, and so pressed for the purchase by the Game Commission that about the year 1931 the Commission purchased game lands 57 on that mountain, which has been enlarged since, and now contains about thirty thousand acres, and is one of the finest game and growing timber areas in the state.

Mr. Smith was an ardent supporter of the Game, Fish and Forestry Commissions, and his principal theme was always to give those commissions loyal and well-directed support in their important work. His passing leaves a wide gap in the ranks of the worth while sportsmen and conservationists of the state.

At a meeting of the United Sportsmen held April 19, 1944, the camp, in a resolution, expressed its great appreciation for his work as follows:

"BE IT RESOLVED That, in recognition of the efficient services of Mr. H. S. Smith, the United Sportsmen of Pennsylvania place upon its records this testimonial:

"That for many years he was a member of this Association, and during the past twelve years of his life, served as its President with distinction. During his life he rendered influential service in support of the Departments of Forestry, of Game and of Fish in this Commonwealth. He was influential in securing public lands devoted to the increase and protection of wild life, and in advocacy of efforts to preserve the purity of the waters. In his death on Easter Sunday, April 9, 1944, this Association has lost a useful, an influential, and distinguished President."

Commission is Honored—Inspects Game Lands



Photo by Leo A. Luttringer, Jr.

Members of the Game Commission and officials of its administrative and field organizations looking over Brady's Lake on State Game Lands in Monroe County to determine what facilities are needed to improve the area for the public. One end of the lake is shown in the picture below.



Approximately 200 sportsmen of northeastern Pennsylvania, under the auspices of the United Sportsmen of Pennsylvania and the Luzerne County Federation, turned out Saturday evening, May 6, at the Hotel Redington, Wilkes-Barre to get acquainted with the members of the Game Commission who held their regular meeting in that city during the afternoon primarily to establish seasons and bag limits for the coming Fall and fix the next fiscal budget. It was the first time since 1939 that the Commission had a full membership, made possible by the appointments on April 13 of Mr. John C. Herman and Dr. Carl B. Rosenkrans.

The meeting, the banquet and subsequent field trip the following day over Game Lands No. 57, Wyoming County, known as the Mehoopany lands, and Game Lands No. 127, Monroe County, on which Brady's Lake is located, were the culmination of plans and arrangements made by the late H. S. Smith whose obituary appears elsewhere in this issue, and who spent many of the later years of his life in assisting the Commission to acquire good hunting territory in northeastern Pennsylvania.

The banquet was presided over by Steve Emanuel, President of Camp 103 United Sportsmen of Pennsylvania, Wilkes-Barre, and a director of the Head camp of that organization, who, following his opening remarks, asked all present to bow their heads in a moment of silent reverence for "Uncle Had," as Mr. Smith was so affectionately known. He then introduced that grand old sportsman and former member of the Commission, the Hon. J. Q. Creveling, Wilkes-Barre lawyer, who was one of the guiding spirits behind the Game Commission for many years and who assisted materially in all its legal affairs. Mr. Creveling then called upon the members of the Commission, each of whom made splendid extemporaneous remarks, culminating with an address by President Ross L. Leffler. Executive Director Seth Gordon was also called upon for a few remarks, and the uniformed Game Protectors of Division "B," supervised by Jay Gilford, as well as various members of the Harrisburg Staff were introduced, as was Dr. C. A. Mortimer, Secretary-Treasurer of the State Federation of Sportsmen's Clubs, and others.

Mr. Creveling and two other former members of the Game Commission, Mr. Francis H. Coffin and Mr. John H. Price, were on hand in advance of the meeting to greet the old members and welcome the new ones.

Although Sunday morning was heralded with a terrific downpour which lasted several hours, and which made the mountain roads extremely hazardous, it did not dampen the ardor of the Commissioners who spent the forenoon looking over State Game Lands in Wyoming and Sullivan Counties to study ways and means of improving hunting conditions in that part of the Commonwealth. Special consideration was given the development of waterfowl areas.

In the afternoon the party visited Brady's Lake State Game Lands in Monroe County to determine what facilities were needed there to improve the area for the use of the public, and agreed to permit the use of boats on the lake for fishing between 5 A.M. and 10 P.M. daily during the months of July, August and September, and to provide other facilities not inimical to the purposes for which that tract of State Game Lands was acquired by the Commission.

Subject to the Governor's approval, the Commission at its meeting May 6, 1944 approved the amount of $1,473,150 for budgetary purposes for the fiscal year June 1, 1944 to May 31, 1945, which represents the unexpended balance of the $2,656,600 allocation from the Game Fund for the 1943-45 biennium.

The budget provides for all operating expenditures, including maintenance, development and protection of 1,033,812 acres of game lands, 1,206 game refuges; also operation of four State Game Farms, payment of bounties, etc.

In an attempt to improve its operating organization and to increase its efficiency to serve the sportsmen better, the Commission also made two important shifts of departmental units. One of these, dealing with predator control and the payment of bounties, was transferred from the Division of Accounting and Budget to the Division of Law Enforcement; another unit which handles the Commission's purchases was made a part of the Division of Accounting and Budget.

HOLD ACCIDENT HEARINGS

The Commission is holding 84 hearings on hunting accident cases in 33 of the Commonwealth under the supervision of W. C. Shaffer, Chief of its Division of Law Enforcement, who is the designated referee for the department in such matters.

Since the Game Law of 1937 authorized this procedure, 532 such hearings have been held. This provision in the Law is the most powerful weapon the Commission has to reduce accidents caused by careless and negligent hunters, and is comparable in effect to safety hearings held for violations of the motor vehicle code.

1944 GAME SEASONS AND BAG LIMITS

Game seasons and bag limits for this year, tentatively scheduled several months ago to enable busy war workers to plan early for their vacation during the coming hunting season, were officially established at a meeting of the Game Commission held May 6th, and are set forth in the table opposite.

No changes were made in the daily or seasonal bag limits over last year except in the case of raccoons, for which the daily bag was increased from 3 to 4 and the seasonal limit from 15 to 20 because of the widespread abundance of these animals. A statewide season was declared on raccoons this year, believing it would be received more favorably by the sportsmen than the two-zone regulations in effect last year.

Because the Commission has discontinued stocking Hungarian Partridges, and since predators are taking toll of those remaining in the various counties, it was deemed wise to open the season statewide on these birds. In previous years only a few counties were open to Hun shooting.

The Commission did not declare an antlerless deer season, even though one was recommended for a few counties this year, because it was deemed wise to defer such action in the hope that returning servicemen will have an opportunity to participate in it. Indications are that a statewide antlerless deer season will be necessary next year.

As heretofore, in the interest of safety, no hunting will be permitted before 9 A.M. on the opening day of small game season; 8 o'clock thereafter.

Seasons for migratory game will be announced later by the Federal Government.



Photo by Leo A. Luttringer, Jr.

Don Fetterolf, Wilkes-Barre, member of Camp 103 United Sportsmen, yanked out three native brook trout from the waters of Bradys' Lake while members of the Game Commission and other visitors to the area were looking on. He caught them fishing off an old wharf. Bass also abound in the lake.

PENNSYLVANIA GAME COMMISSION

OFFICIAL 1944 OPEN SEASONS AND BAG LIMITS

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. **On November 1 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. (See Special Regulations for hours to set traps in open counties.) Raccoons may be hunted at night, with a noon-to-noon daily limit.

UPLAND GAME (Small game possession limit three days' bag)	Bag Limits Day	Season	Seasons Open	Close
Ruffed Grouse	2	10	Nov. 1	Nov. 30
Quail, Bobwhite	5	15		
Hungarian Partridges (Statewide)	2	8		
Wild Turkeys (See 9 counties closed below)*	1	1		
Ringneck Pheasants, males only	2	12		
Rabbits, Cottontail	5	25		
Squirrels, Gray, Black and Fox (combined kinds)	6	24		
Squirrels, Red	Unlimited		Nov. 1	Sept. 30, 1945
Grackles (commonly called Blackbirds)	Unprotected until Sept. 30, 1945			
Hares (Snowshoe Rabbits)	2	6	Nov. 15	Nov. 22
Raccoons, by individual or hunting party*	4	20	Oct. 23	Feb. 1, 1945
Raccoons, by trapping (Statewide)*		20	Nov. 1	Feb. 1, 1945
Woodchucks (Groundhogs)	5	Unlimited	July 1	Sept. 30
Bear, over one year old by individual	1	1	Nov. 27	Nov. 30
Bear, over one year old by hunting party of three or more	2	2		
Deer, male with two or more points to one antler	1	1	Dec. 1	Dec. 16
Deer, as above, by hunting party of six or more	6	6		

NO OPEN SEASON—Sharp-tailed Grouse, Doves, Cub Bears, Antlerless Deer and Elk.

MIGRATORY GAME BIRDS—(Seasons fixed by Federal Government. For species and regulations see separate summary issued with license.)

FUR-BEARERS—(See note under Special Regulations)*

Minks and Skunks*	Unlimited	Nov. 1	Feb. 1, 1945
Otters*	Unlimited		
Muskrats (By traps only)*	Unlimited	Dec. 1	Feb. 1, 1945
Beavers (Traps only. See 31 counties closed below)*	2	Feb. 15	Mar. 1, 1945
Opossums	Unprotected until September 30, 1945		

***SPECIAL REGULATIONS**

Turkeys—Counties of Clarion, Forest, Jefferson, McKean, Potter, Snyder, Tioga, Warren and Westmoreland closed.

Raccoon Hunting—The season begins at noon on the opening date, and ends at same hour on the closing date.

Raccoon Trapping—Traps not to be placed before 9 A. M. on the opening date (see instructions below concerning lifting traps on closing date).

Beavers—No trapping in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bucks, Cambria, Cumberland, Delaware, Fayette, Franklin, Fulton, Greene, Huntingdon, Indiana, Juniata, Lawrence, Lebanon, Lehigh, Mercer, Mifflin, Montgomery, Northampton, Perry, Philadelphia, Somerset, Washington, Westmoreland, and York. **Non-Residents may not trap beavers.** One person may set, tend or operate 10 traps only. **Traps must not be placed closer than 15 feet** from the waterline on any established beaver houses. **Pelts must be tagged within 10 days after season,** and may not be sold or otherwise disposed of until properly tagged. Present them to Protector in District or County where trapped.

Trapping—Traps for fur-bearers and raccoons not to be placed before 9 A. M. on Nov. 1, or before 8 A. M. on any later opening date for trapping. The season on the last date indicated for trapping closes at 12 o'clock noon to permit removal of animals caught on the last night of the season and lifting traps by daylight.

Snares—May be used without springpoles for taking predators from December 16 to March 31, 1945, in all counties except Allegheny, Armstrong, Beaver, Berks, Bucks, Cambria, Chester, Dauphin, Delaware, Fayette, Greene, Indiana, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Somerset, Washington, Westmoreland and York.

(AS FIXED BY COMMISSION AT MEETING ON MAY 6, 1944)



Carl, Harry (father), 11-point; Russell, 8-point; Alvin, 8-point; and Sylvan Lemkelde, of Dover, R. D. 3 with trophies bagged in Potter County, season of 1942.



William J. Davis
Supervisor, Division "D"

KNOW THEM BETTER

Supervisor Davis needs very little introduction to most of our readers. His service has been long, faithful and energetic. Beginning as an Assistant Game Protector in Clearfield County in 1920, he was promoted to District Protector in '21 and served as such until appointed Field Division Supervisor in 1933 and transferred to Williamsport in Charge of Division "C". Later, in 1936, he was assigned to Division "D" with headquarters at Huntingdon.

An all round sportsman, "Bill's" hobbies are dry-fly fishing and grouse hunting, although he played a lot of baseball in early days and did about eight years of track. He also played four years of professional basketball.

Born and raised in Wellsboro, Tioga County, he attended High School there, and later learned and pursued the glass cutting and engraving trade which he followed throughout most of the eastern United States for many years until conservation finally claimed him. Since then he has become one of its staunchest advocates.

Every day in the year is open season for deer hunting in New Caledonia, where vast deer herds have been such a nuisance that bounties were offered for their hides. American troops stationed there on their way to and from the battle fronts found they could add diversion to their lives and variety to their company mess by going into the hills and bagging a supply of venison with their M1 rifles. Soldiers may go hunting deer only with consent of their company commander, who must satisfy himself that *the men are thoroughly qualified to handle a rifle.*—A.P.

TRAP 33,000 RABBITS

The close of the fiscal year on May 31, 1944 established a new record for the Commission's live trapping and transfer program since this activity was established in 1937-38. The previous record was 32,799 rabbits trapped during the fiscal year of 1940-41. This year over 33,000 rabbits were taken in spite of a greatly reduced field staff of Game Protectors, the absence of many former trapping agents now in the Armed Services, poor trapping weather in some areas and a reduced rabbit population in the northeastern and western sections of the State.

Sixty-four of the 100 field districts passed last year's trapping record in the number of rabbits secured. District G-2 (part of Allegheny County, including Pittsburgh) leads with a total of 2,564 rabbits; District A-2 (part of Berks County) was second with a total of 2,330 rabbits; a great deal of friendly rivalry exists between the Game Protectors and the sportsmen of these two districts. In some years Berks leads in rabbits trapped, while in other seasons Allegheny County forges ahead. Both counties have especially fine trapping areas. The Maiden Creek Dam Area, which is the Reading City watershed, affords wonderful trapping in that territory while the big metropolitan Pittsburgh district, together with North and South Parks and other splendid areas, gives Allegheny County a wonderful opportunity to secure native trapped rabbits.

Five of the 7 Field Administrative Divisions passed last year's trapping record, namely, "A", "B", "C", "D" and "E".

The splendid cooperation given the Game Commission by the military authorities was responsible for the excellent trapping record established in Cumberland, Franklin, and Lycoming Counties. A total of 2,086 rabbits were removed from the Letterkenny Ordnance Reservation, near Chambersburg, by three salaried officers of the Game Commission, while one salaried officer was responsible for the trapping of 833 rabbits from the military reservation near Allenwood, south of Williamsport.

Victory Gardeners experiencing damage to vegetables by rabbits should write to the Pennsylvania Game Commission, Division of Propagation and Research for a copy of the latest Circular on Rabbit Repellents, which is printed elsewhere in this issue.



These lucky nimrods from Southern Lancaster County are, left to right, Art Mort, Don Graybill, Wayne Byres, Mart Stoner and Thurman Shank. Their camp is in Potter County.



Thomas F. Bell
Supervisor, Division "C"

KNOW THEM BETTER

Although he has held his supervisory position only since last year, Mr. Bell's service with the Commission dates back to 1934 when he was appointed a Deputy Game Protector. Later he served as Traveling Game Protector in both Greene and Somerset Counties. He was appointed a District Game Protector of Huntingdon County in 1936, and pursued diligently the duties of that office, along with periodic special investigation work, until he was promoted to Field Division Supervisor, Division "C" in 1943.

An ardent outdoorsman, Mr. Bell started hunting with an old single-shot .22 when he was ten years old and avidly pursued that sport, and fishing, in many states in later years. He likes dry-fly fishing especially.

He played high school (Waynesburg) and college (Monmouth) football, and took part in track and basketball. He also served three years in the Illinois National Guard in which state he was employed as an assistant buyer of a large mail order concern. By birth he is a Pennsylvanian, hailing from Waynesburg. He was affiliated with several college fraternities.

Rabbit trapping is difficult during the spring and summer months, when there is so much natural food everywhere. Next winter the Game Commission will again schedule a State-wide Game Trapping and Transfer Program through its field officers, and all gardeners, orchardists, etc., who have rabbit damage or anticipate trouble along this line, should contact their local District Game Protector at the beginning of the winter, so that he may plan to trap all of these areas as completely as possible.

Complete results with detailed data covering the 1943-44 trapping season's activities will be presented by Wilbur M. Cramer, in charge of the game trapping and transfer program in a later issue of the GAME NEWS. Watch for it.

PRELIMINARY GAME KILL

The preliminary tabulation of the 1943 game-kill reports, comprising 79½% or 462,-580 returns from the 582,097 persons who took out licenses last year, was laid before the Game Commission for consideration at its recent meeting when seasons for 1944 were decided upon. The tabulation shows that a pretty fair harvest was gleaned last Fall despite the fact that most hunters were unable to spend as many days in the woods nor hunt as many hours as they did in previous years.

The kill, according to the tabulation, was as follows:

Deer (Antlered Bucks)	21,915
Deer (Antlerless)	14,011
Bears	288
Rabbits	2,207,838
Squirrels	683,091
Woodchucks	139,320
Raccoons	40,307
Wild Turkeys	2,051
Ruffed Grouse	100,544
Hares (Snowshoes)	3,249
Ringneck Pheasants	362,950
Quail	33,685
Hungarian Partridges	1,017
Woodcocks	13,150
Shore Birds	1,257
Geese	818
Ducks	46,969
Grackles (Blackbirds)	20,702

This compilation totals 3,693,000 pieces of game of all kinds. The comparable figure for the 1942 season (81% of the licensees reporting) was 5,184,000, while the final figure for that year was 5,869,000 pieces, weighing 7,100 tons.

The total kill was lower than usual, and a higher percentage of hunters than normal killed no game last season, because (1) there were less hunters afield; (2) certain species of small game were considerably less abundant; (3) in several regions the weather was extremely bad for the opening day; (4) industrial and war conditions prevented license holders from hunting at all, or sharply reduced their hunting time; and (5) the scarcity of ammunition naturally affected the kill.

The percentage of licensees reporting promptly as required by law was unexpectedly high, and the final figures for all species will be increased when the remaining obtainable reports are tabulated.



Photo by R. O. Weissenstein.

The photographer, mentioned above, asked that we title this picture "The end of a perfect day." He snapped it in Mercer County last Thanksgiving and it sure looks like a happy family.

OFFICIAL NOTICE

WHEREAS, The Pennsylvania Game Commission is of the opinion that for the better protection of game it is temporarily desirable and necessary to increase certain bounty rates, and to pay rewards or bounties to encourage the killing of certain destructive owls, all throughout the Commonwealth;

THEREFORE, BE IT RESOLVED, That the Pennsylvania Game Commission, acting under the powers and authority vested in it by the provisions of Article XI, Sections 1101 and 1102, of the Act of Assembly approved June 3, 1937, P. L. 1225, entitled, "An Act concerning game and other wild birds and wild animals; and amending, revising, consolidating, and changing the law relating thereto", by resolution adopted this 6th day of May, 1944, changes the rates of bounty heretofore paid for the killing of certain animals, and adds certain birds to the bounty list, all such rates to become effective July 15, 1944 and continue for a period of one year expiring July 15, 1945, inclusive, said rates of payment to be made for specified birds and animals killed in a wild state in the Commonwealth only during said period and when presented in the manner and under the conditions stipulated in the Act aforesaid, the new rates of payment to be as follows:

1. GRAY FOX—That the bounty on the gray fox be continued at $4.00 up to the end of the period indicated, with no bounty on the red fox.

2. WEASEL—That the bounty on the weasel be increased from 50c to $1.00, for all weasels killed during the period indicated.

3. GOSHAWK— That the bounty on the goshawk be continued at $2.00 for adults and $1.00 for fledglings, for all goshawks killed during the period indicated.

4. GREAT-HORNED OWL—That a bounty of $4.00 be paid for adult great-horned owls and $2.00 for fledglings, for all great-horned owls killed during the period indicated.

BE IT FURTHER RESOLVED, That the foregoing resolution shall be duly published in accordance with the provisions of Section 1102 of Article XI of the Act aforesaid in the June and July 1944 issues of the PENNSYLVANIA GAME NEWS, as required, and this change in the rate of bounties to be brought to the attention of the public through other available channels, the Executive Director of the Commission being hereby authorized and directed to certify the foregoing as and for the act of the Pennsylvania Game Commission.

SETH GORDON,
Executive Director.

EXCHANGE GAME BIRDS

Four thousand fine, healthy wild-trapped pheasants from the State of South Dakota in return for 2,000 Hungarian Partridges, reared at Pennsylvania's State Game Farms, recently constituted a mutually beneficial trade with the South Dakota Game and Fish Commission. The exchange enabled the Pennsylvania Game Commission to dispose of all its Hungarian Partridges, the propagation of which was discontinued this year after a long period of unsuccessful experimentation, and to acquire twice as many wild-trapped pheasants from South Dakota, half of which the Commission stocked in suitable areas in the northern part of the State where efforts in the past to establish the ringneck have not been very successful.

It is believed that the wild-trapped birds, which are hardy and well able to withstand a cold climate, will have a better chance to gain a foothold in the northern tier counties than the farm reared birds which the Commission has been stocking in that area for the past several years.

All released birds were banded with tags bearing the name of the Pennsylvania Game Commission, and hunters who kill any this Fall should report them immediately, as this is the only check the Commission has to determine the success or failure of the undertaking.

The other half of the South Dakota birds are being cross-mated with breeding stock at the Loyalsock and Jordan Game Farms in order to improve the strain.

TRAP 1200 BEAVERS

Exactly 1281 beavers were taken by Pennsylvania trappers in 20 of the 22 counties open from Feb. 15 to 29, a rich harvest despite the fact that the number was considerably less than the 2,011 taken in 1943. Figuring on an average of $40, which trappers received in some parts of the State, and you get a net return of over $50,000—not a bad return annually on animals which were not restocked in Pennsylvania until 1917, and none of which lived in the Keystone State many years prior to that.



Photo by Leo A. Luttringer, Jr.

This 'chuck, though fat and in good physical condition, must have had a tough time eating judging by the manner in which its tusks grew. Note the long, protruding lower and curved upper ones.

A Review of the Ruffed Grouse--

(Continued from page 11)

released, and a stand of uneven-aged trees established, thus bettering the area for wildlife."

A lumber or timber job, without any restrictions on species to be left standing as food producers or winter cover, will often deplete an already potentially desirable grouse habitat of its chief assets. Once these have been lost, it takes nature a long time to replace and repair the damage done. Too much cutting and thinning will reduce the carrying capacity so that it may become an undesirable attraction to a normal grouse population. Especially will this be true if the resulting slash provides a fire hazard and careless burning destroys all semblance of food and cover.

In the process of cutting and thinning timber, great care should be exercised so that a sufficient quantity of "budding" trees are left for the winter food of the grouse. In times of drought or scarcity of other foods, such trees as aspen, red maple and birch are vitally essential in order to carry over a sufficient breeding stock for the ensuing years.

2. The second practice recommended is that of planting seedlings of food and cover species, when and if the deer herd will allow a reasonable survival.

Ordinarily, when the deer become so numerous that they kill out the common shrubs that produce grouse food, it is time to stop planting or reduce the deer herd. The following species are recommended for planting: hemlock, white pine, red pine, spruce, viburnums, dogwoods, wild grape, bittersweet, wild rose, virginia creeper, mountain ash, hawthorn.

The establishment of artificial food plots for grouse is an expensive luxury because of locations in remote sections of the forest, poor soil fertility and competition from other game. However, some benefits are derived from interspersed plots which have received applications of fertilizers and lime. Among these may be listed the edge effect created for nesting places, dusting sites, drying out spots, which increases insect life and "greens" for spring and fall consumption. A favorite crop rotation is buckwheat, two years; winter wheat, one year; followed by spring planting of such clovers as alsike, dutch white and Ladino. Fallow food plots often furnish an abundance of sheep sorrel, a favorite grouse food.

In locating food plots, the site chosen should usually be one with a southern exposure or else fairly level land, good soil fertility and texture and readily accessible for farming practices.

After an inventory of a certain tract has been made to determine its suitability for intensive management of the ruffed grouse, the area should be well interlaced with roads and fire trails in order to facilitate future practices such as timber operations, fire prevention and suppression, planting, patrolling and administration. The openings resulting from these operations, possible food plots and slashings should approximate at least 10% of the total area.

The pattern as reported in the findings of Edminster (1934) can well be used as the guiding principle in a planting and timber operations program for the benefit of the grouse in order to provide for the proper juxtaposition and interspersion of food and cover elements. Briefly, the recommended cover types and the most desirable proportion of each are: (1) A growth of young hardwoods, with some hemlock or spruce mixed in for spring nesting cover, 30%; (2) brushy overgrown land with dogwoods, viburnums, thorn apples and other fruiting shrubs for fall feeding grounds, 20%; (3) woods with a predominance of conifers, preferably hemlock, for winter shelter, 30%; (4) slashings for summer brood feeding grounds, 10%; and open land grounds, 10%. Naturally, the topography and location of streams, valleys and ridges will necessarily determine to a great extent the final pattern that will be put into operation.

In making suggestions for the improvement of the carrying capacity of certain areas for the ruffed grouse, it must be kept in mind that good results can only be expected and not guaranteed; that the program must be of long duration for best results; and that the neglect of one particular phase of the program may cause failure in general. For example, a disastrous fire may, in a short period of time, wipe out the good results that have been attained only after years of patient planning and tedious work.

These suggestions are presented with the idea of Conservation of natural resources in mind, and not on the theory that in order to create, one must first destroy. The recommendations presented are not designed to cure any so-called cycle, the probable cause or causes of which are still a moot question, but rather are a summary of practices, the majority of which have already been put into practice with more than average success on certain tracts of State game lands in Pennsylvania.

It is assumed that the primary aim in this procedure is the production of game for recreational purposes rather than the mere commercial aim of timber production. The latter in this case has been relegated to a secondary position as a natural by-product, the proceeds of which may be used to help "pay the freight".

Certainly, if health and worthy use of leisure are two of the cardinal aims of education—then hunting, fishing and outdoor recreation should forever be encouraged.

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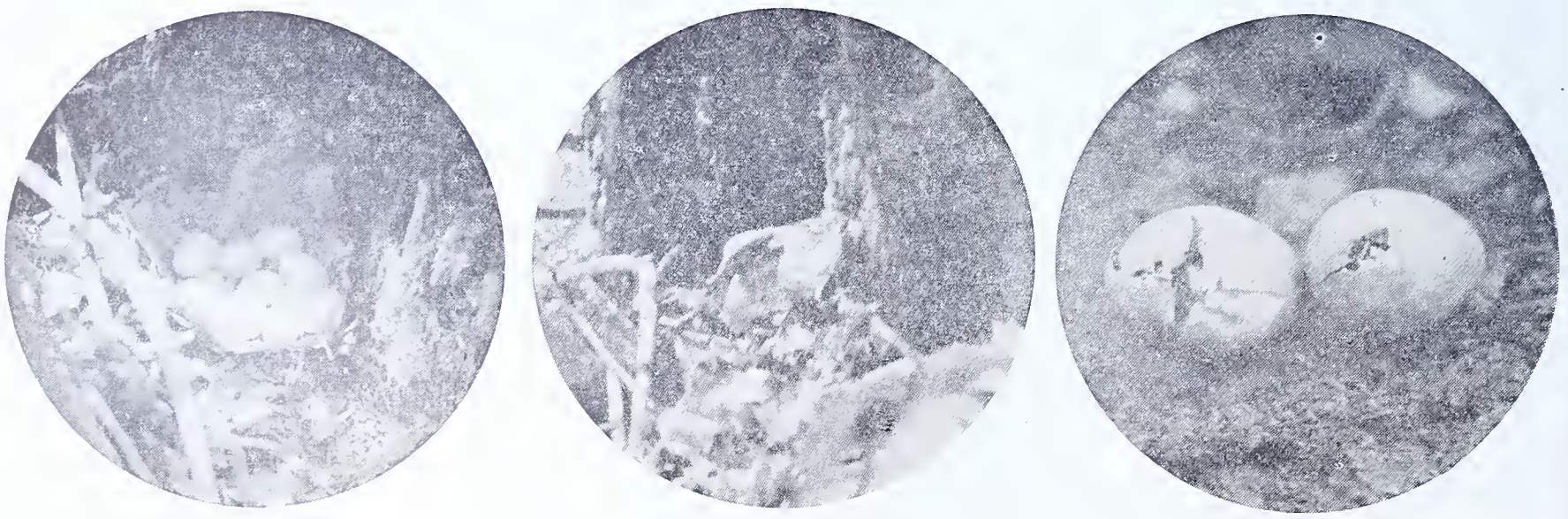
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Eggs pipping.



The finished product.

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A BIRD IN THE HAND----

(Continued from page 9)

Next morning we were up and at 'em bright and early. The day was beautiful, cold enough to be exhilarating. Conditions were just right for the pointers. Knowing their abilities, I was confident of a swell hunt. That is, if somebody had not found the birds and wiped them out.

We drove through some good pheasant country. Alex pointed out this spot and that cover, with tales of success or humorous failures. We turned into a narrow dirt road, drove a short distance and parked.

"Well—here we are"—Alex waved his hand toward the fields on the left side of the road.

I saw some fields, mostly harvested, edged by a ravine in which young spruce and pines were growing. Beyond the cultivated sections were overgrown fields, full of seed-bearing weeds. Surely, a small but natural cover for quail. I hoped, as I looked, to hear the all-too-seldom-heard bobwhite call.

When we gave the pointers the signal, Pat raced across the barren ground to work the birdie cover while Peg, less experienced and a "close" worker, trailed behind. We went across the fields to the end of the cover without any sign of game.

Alex looked worried. "I guess we're too late," he said, "Somebody must have found them. If they are here, Pat should have winded them by now."

We slowly turned to make our way back through the cover. Peg was close at hand. But Pat wasn't in sight, so Alex, after looking around for her, whistled. We walked on but Pat did not appear. Alex began to perk up.

"She must be on point somewhere, or she'd have come to my whistle."

So we looked all around, but no Pat was to be seen. At least ten minutes had passed since seeing her when Peg, over near the ravine, took a beautiful point, head high.

"She's backing!" Alex almost shouted his joy as we hurried toward the staunch Peg.

I unlimbered my camera as Alex checked his gun. Peg was pointing at the small, tree-filled ravine. No Pat was to be seen until we were almost beside Peg.

There she was, a tense, solid, white statue, her muscles quivering under the strain of the long wait on point, her nose directed toward a clump of tall grass near the first evergreen. Alex and I watched in admiration of the beautiful teamwork. The mother leading, the daughter backing her one hundred percent.

Suddenly I realized that here was what I had come for. A marvelous picture of two thoroughbreds in action. Alex waited patiently as I snapped first one, then another picture. Still a third view was snapped while the pair held their frozen stance.

Then I decided to take a close-up of Pat. Warning Alex to be ready, I worked around Pat, hoping to get a close, head-on picture. Peg sensed the danger and crept closer. Pat held rigid as I went forward and bent down to focus on that marvelous head.

Almost under my feet the birds exploded in that beloved rush of wings. A shot rang out and Pat relaxed, watching a bobwhite plummet down through the trees into the bottom of the ravine. Alex and I counted the scattering birds as they sought shelter in the distance. I figured there were about eight birds left in the covey, an ideal number around which to build a future population.

While Peg charged, Pat retrieved the dead bird. We examined it carefully. It was a male and in good condition. Evidently the birds were thriving in their covert so near the center of population.

For a while we let the dogs work on a few singles and then Alex called them to heel. Two or three times he had passed up good shots. There was no need to ask him why.

"Let's go on to the other covey," Alex proposed. "If we chase these singles too much, they may split up again. The covey is small enough as it is."

So we went after the other covey, took one bird and then left the rest for another year. There were two coveys, just where Alex had said they would be. Yet the number was too small to stand more shooting.

When there are birds to be had, it's a real temptation to take them. But Alex knew, as do most conservationists, that it is impossible to build up a population of game birds unless there is a goodly number to start with.

What most sportsmen don't know is that one or two pairs of birds will not establish themselves in a cover. For some reason, the birds, especially those which naturally live in flocks, do not breed successfully when segregated by pairs. A covey of quail should contain a minimum of six or eight, or even more birds, if they are to survive the winter and increase in numbers to afford real shooting.

If sportsmen were more conscious of this law of nature, the presence of two birds in a bush would not excite them to take one in the hand. For future sport, there must be a good sized breeding stock so that, in spite of the death toll of accidents, disease and predators, plus the hunters, only the interest will be taken, leaving the principal untouched.

On the other hand, sportsmen should also know that a covert of given size can support only a given number of birds or game. Too many of any species in an area breed disease and other destructive forces which may not only take the interest but also a part of the principal.

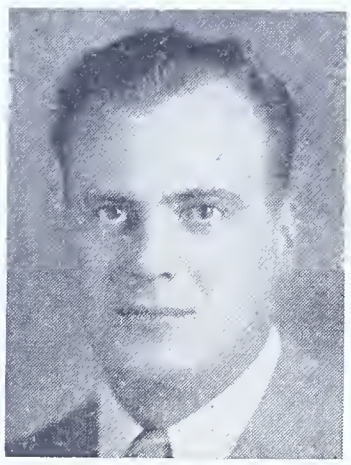
Therefore it behooves the sportsman to take his interest out of the covers in order that the breeding-stock principal may thrive in health and reproduce to full capacity. Only in this way will a happy medium be achieved.

It is a comforting knowledge to know that there are two birds in the bush. It's a thrill to bring one to hand. We can have both if we're real sportsmen, like Alex.

☆ ☆ WITH THOSE IN THE SERVICE ☆ ☆



George W. Miller



Samuel K. Weigel



Stanley Cooper

The men shown to the left and right just entered the service recently and we wish them the best of luck. They are, left, Game Protectors George W. Miller, Conoquenessing; Samuel K. Weigel, Mercer; and Stanley Cooper, Division of Accounting, Harrisburg Office. It is our hope in the very near future to compile a complete up-to-date roster of all Commission employes in the Service, which will be published in a forthcoming issue.

We just learned the other day that Lt. Col. Nicholas Biddle, member of the Game Commission, of Bethayres, was elevated to the rank of full Colonel and named Deputy Port Commander in Britain where he has been on active duty for more than two years. Congratulations Colonel Biddle.

We also learned that Lt. Robert Lichtenberger recently married a charming young lady from Michigan. Congratulations to you too Bob, and best wishes to you both. Incidentally Bob asked us to thank all those who sent him Holiday Greetings.

The same to Mike Grabany who just received a Petty Officer 3/cl rating and who is now serving as an instructor at U.S.N.A.G.S., Jacksonville, Florida. Dr. Kilgus, member of the Commission from Brockway, dropped us a note the other day saying that Mike won first place in 50 cal. by 4 bulls, the 30 cal. machine gun shoot by 2 bulls, and broke 47 clay birds out of 50 on the skeet range.

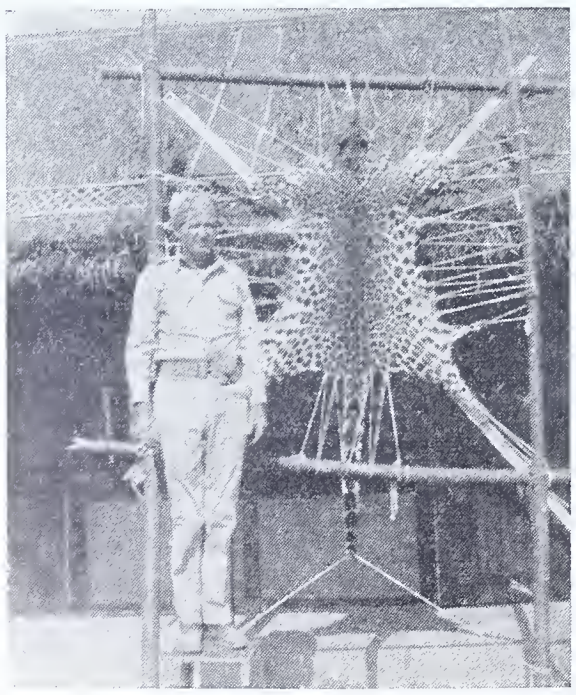
Lt. Bob Latimer added a water buffalo to his overseas hunting trophies—from the back of an elephant so he says.

Major Everett W. Johnson, son of Mr. and Mrs. Fred A. Johnson of Emporium, Pa., writes, January 20, 1944, from the Middle East as follows: "You asked me in one of your letters, Dad, if there was anything you could send me. About the only thing I can think of at the moment, and I frequently think of that, is you might send me about two and a half miles of that wooded section of Cowley Run where I used to get so much pleasure trout fishing. Along with that you might pack in a couple of those beautiful long hollows up North Creek where we used to go together shooting grouse in the lazy autumn days. All of these things come back to me in vivid, pleasant memory. Then too, I miss the deer hunting with its snow, wind-swept rocky points against the sullen winter sky; the distant cries of driving parties, and the poignant smell of wood burning on the hearth of a hunting camp nestled in some sheltered hollow.

"And I'll never forget the summer nights we spent fishing for brown trout up the Portage and again on Little Beaver Creek. What fun we had together, and what trout we caught! I can still picture Albin (Bloomquist) crashing through the willows, flashlight in one hand, and running straight out into space from the high bank, to come down almost head-first into the creek where I was trying to land that 20-inch brown trout. Then, towards morning, the breakfast we cooked. I can almost smell the bacon and eggs and whiff that strong, hot coffee. Boy! Will I have a lot of things to catch up on when I get back!"

Editor's Note. Major Johnson was at one time a Deputy Game Protector in Cameron County.

"I suppose you are a bit surprised to receive a letter from Italy and from someone you do not know. So please let me introduce myself. My name is Robert Bender and I lived with my parents near Mohnton, Berks County, Pennsylvania. My whole family are ardent sportsmen and my grandfather, father, sister, brother-in-law and myself go hunting and fishing. My mother likes the outdoors and does some fishing but no hunting. We all belong to the Mohnton Fish and Game Association and subscribe to the PENNSYLVANIA ANGLER and GAME NEWS and I sure do enjoy them. By the time you receive this letter I will have a year overseas traveling in Africa, Sicily, and Italy.



Lt. Robert Latimer, proudly displaying a leopard he killed recently in India.

"We have a newspaper over here called the Stars and Stripes and in it there is a space reserved for Pup-Tent poets as they are called. One of the boys overseas had a poem published in it which I think expresses some of our views very well. I am enclosing a copy of this one particular poem hoping you will print it in your GAME NEWS, as I think many of your readers would enjoy reading it. Here is wishing everyone a very enjoyable fishing and hunting season in this new year.

"Good luck, and may we meet someday back in the good old U. S. A."—Private Robert Bender.

THE SPORTSMAN SPEAKS

What are we fighting for? Some people ask,
As we buckle down to the gigantic task
Of helping to bring back our old war-torn world
From the pity of insanity into which it was hurled.
But of the answers man give, no two are the same
Some are fighting for hatred, some for a name,
Some for democracy, that's an answer that's typical
Or some lofty ideal that is probably mythical;
But there is something else in the heart of this man
Who enjoys the outdoors of our God-given land.
The scent of pines, the splash of trout,
As it rose to his fly with wide-opened mouth.
The crack of the "twenty" when the partridge got up,
The first point that was made by my six month's old pup.
The mornings when the marsh grass was bent by the wind
As I sat there and prayed for the mallards to come in;
Wisconsin's winter days, chopping holes in the ice,
And the final reward of a couple of pike.
The green hills of May and the gold of September
Unimportant, you say, then remember this well
For these things I fight, and I'll fight like Hell!

"Thanks ever so much for your communication of March 15. I read very carefully the address of Mr. Leffler on the Land Management Program and enjoyed it very much. I appreciated more than anything else the attitude that he assumed because after all what we need is the cooperation of all agencies concerned.

"I am very happy in my present work. None of us know how long we shall be here. I would like to tell you much about what is going on but I am afraid that this must wait until we can get together somewhere in the hills of Pennsylvania. I have not been completely divorced from my outdoor activities. I have enjoyed some splendid quail shooting with some really high-classed dogs. As you know, this section of the state of Texas has produced some outstanding dogs, such as John Proctor. I found that there are plenty of quail and they are just as hard to hit in Texas as they are in Pennsylvania.

"One of my chief joys is chasing jack rabbits with a beagle hound I brought from Pennsylvania. We had some real bunny chases. It seems that in this section of the state nobody cares to eat rabbit meat; however, I have some good friends here from Pennsylvania and we sure enjoy some good rabbit stews. Believe it or not, I have also done some bass fishing and have caught some very nice bass. Here they grow big and they seem to be quite plentiful. I have also made the acquaintance of some very fine sportsmen and together we have had a lot of fun talking about the things which are of mutual interest.

"Naturally we are all looking forward to the time when the lights go on again and we can return to our homes. I am very anxious to get back into the harness again and work with the sportsmen in Pennsylvania. So many things have happened since I left there and I am afraid I have not any suggestions to offer, but it is a great satisfaction to feel that the things you prize most in life are in good and capable hands. All that I can do is to wish you the best of luck and convey my best wishes to our mutual friends of the Commission."—Captain Darlington R. Kulp, Chaplain, Post Headquarters, Camp Hood, Texas.

Editor's Note. Dr. Kulp was former President of the Pennsylvania Federation of Sportsmen's clubs.

The office force was agreeably surprised the other day when Lt. (sg) Dick Gerstell and Sgt. Bill Miller dropped in to say hello; and Oh yes, there were letters from Lt. Bob Parlaman, and Privates John P. Eicholtz, W. L. R. Drake and Delbert Batcheler. How about the rest of you fellows? Let's hear from you.

Sgt. Clint Ganster asked us to thank all his brother officers for the many Holiday Greetings. He couldn't acknowledge them all individually. He says "keep up the game population. I will have an itchy trigger finger when I return."

FOOD FOR THOUGHT

The Pennsylvania Game Commission is digging deep into the problem of developing a better land management program of its vast acreage of sportsman owned game lands. We hear occasional complaints from worried sportsmen concerning these million acres owned and controlled by the game commission. Some of the sportsmen make statements to the effect that the commission buys these pieces of land, and then closes most of them to public hunting. It is thought by some, that whenever they learn of certain land being purchased with their hunting license money, it only means that another good hunting area will be closed and used as a refuge. Some of the more radical fellows will tell you that the commission is using the sportsmen's money to cut the said sportsmen's throats by closing lands which were not posted by the former owners. The writer has at times attempted to convince a few of these fellows that such is not the case, only to be accused of sticking up for the commission regardless of what they do. It seems that many of the hunters only know of those game lands which are wired as refuges or propagation areas. I have talked with some who have never hunted on public game land, and do not know where to look for the same.

It therefore appears that a more enlightening system of public information on game commission affairs is needed. Perhaps this could best be accomplished by having legislation passed *providing an additional 50c to the hunting license fee with which to include a year's subscription to the official organ of the commission, the* PENNSYLVANIA GAME NEWS. It is my belief that were all hunters to be supplied with this authentic monthly report of the state game commission, that better feeling, understanding and cooperation would be the outcome.

Similar legislation applied to the Pennsylvania Fish Commission official organ, the *Pennsylvania Angler,* would likewise result in a better knowledge of how and for what the fisherman's money is being spent.

Referring back to the percentage of commission owned land that is open or closed to public hunting, it should be interesting to know; that of such lands, only 171,048 acres are closed to hunting, as game refuges, propagation areas etc. while 862,764 acres are open to public hunting. These are the latest figures from the commission and do not include land under contract for purchase. A very fine map showing in colors game lands owned, and those opened or closed, may be had by writing the Pennsylvania Game Commission, Harrisburg.



Photo by R. W. Rockwell.

Marshall Cohick, Newville, R. D. No. 2, with 205 lb. hog dressed whitetail killed in Cumberland County last season.

POST-WAR PLANS

J. J. SULLIVAN
Remington Arms Co., Inc.

The world is making post-war plans,
They're figuring what to do,
In every branch of Industry,
When the present war is through.
Their plans are all mechanical,
Are based on skill and science.
They scheme to make a wonder world
With many a new appliance.
They dream of Super Autos,
And aircraft that will fly
Without an experts guiding hand
To keep them in the sky.
By new and streamlined methods
The universe they'll run,
And they'll design the gadgets
With which the work is done.
They plan to save a lot of time
And give to folks more leisure,
They'll nullify the curse of toil
And make each task a pleasure.
I'm sure their plans will gratify
Most every human wish,
But my post war plans are simple,
I'm going to hunt and fish.

Old nature will not change the style,
Of the everlasting hills.
The forest will look much the same,
And larks and whippoorwills
Will make the same sweet music
Without a change of note.
Each denizen of woodland trails
Will wear his pre-war coat,
The trout and bass in lake and stream
Will still retain old habits,
And we will find the self same rule
Applies to deer or rabbits.
And so, considering these facts
With no wish to affront
The post-war plans of super minds,
I plan to fish and hunt.

"On March 16, near Ulysses, a white deer was seen in a distant field by myself and three companions. Three other deer were nearby. We saw it move so it was not a snow bank."—Dr. A. P. Kilbourne, Ulysses.

SPECIAL NOTICE

Inasmuch as the special fox hunting seasons now in effect for fifteen counties of the Commonwealth, which permit the hunting of foxes throughout the year except for a sixty-day period, have been confusing because the dates vary greatly, the Game Commission at its meeting on May 6 established a uniform period effective June 1, 1944. A copy of the resolution, as well as a list of the counties concerned, will be published in the July issue.



There are still a lot of unusually large wildcats in Pennsylvania, as the above photo amply justifies. The animal shown was trapped and killed by Mr. R. T. Varner in the Pocono Mountain section some years ago and weighed 35 lbs.

The Montgomery County Federation of Sportsmen's Clubs is planning to conduct a game contest next Fall for which prizes will be awarded for the largest deer, bear, wild turkey, pheasant, rabbit, squirrel and grouse taken in Pennsylvania. It is confined wholly to the membership of the club.

The Federation is also conducting a vermin contest on a point basis as follows: fox, 50 points; weasel, 25 points; goshawk or egg, 25 points; sharp-shinned hawk (or egg), 15 points; Cooper's hawk (or egg), 15 points; crow, 5 points; water snake, 15 points; and water snake egg, 5 points.

In a letter to club members Mrs. Ellen A. Dietrich, Secretary and Publicity Director, pointed out the seriousness of the predator situation locally when she said "You Vermin Hunters may hear some 'griping' from a few farmers who have lost large amounts of poultry and from small game hunters who have been losing out on game due to Mr. Fox's depredations. However, there are plenty of real open-minded sportsmen among fox hunters, and I have actually heard them say there are *'too d - - - ed many foxes in the fields nowadays for even a good hunt!'"*

Whether or not the effort meets with success one must at least hand it to the Federated Garden Clubs of America for undertaking the gigantic task of running a coast-to-coast bluebird trail along the Lincoln Highway from East to West. In a letter to your editor Mrs. Pierce, Conservation Chairman of the Pennsylvania Federation says, "there was not sufficient time or preparation for such an elaborate scheme—it was someone's dream and was immediately given to us in that form. Mr. L. Cheyney Smith of the Haverford Friends Junior School is instructing the boys in his manual training school to make fifteen bird houses for placing in this immediate vicinity."

Let us hope the bluebirds will be appreciative enough to adopt these man-made houses. Even if they don't in every case, however, the gesture will not have been in vain because psychologically it will have aroused a great deal of interest in bird-life, and show how our feathered friends need all the protection we can give them.

SQUIRREL HUNTING

"Here's a few tricks I learned gunning for squirrels. First select a good woods, then find a high place commanding a good view of the woods. Look for the larger timber as there is where the den trees are located. Also look for grain fields or other reservoirs of food. When you have located these things you are ready to go after this wise old woodsman.

"Hunt him when you are pretty sure he will be out, usually when it is warmest during the day, say from 3 o'clock 'till dark. Another good time is just after daybreak when he's feeding. Walk quietly to an already spotted den tree, keeping the tree between you and his feeding grounds, so that when you get to it the feeding grounds are in front of you and the den tree behind you. This puts you in a position to corner him. Be in a position to see all around you, because you never know exactly where he is until you see him. You may have to wait half an hour, or longer. When the old master finds he is cornered he will become rattled and lose some of his cunning. Then you will get your chance to do some shooting.

"Do not make quick movements while you are waiting because the old fellow may be watching you, and if he sees a quick movement he will not come out. I have had people laugh at me when I say I saw seven fox squirrels come out of one den tree, but I am not stretching one. One time while hunting squirrels in a woods near my home I saw all seven come out one right after another. I picked out the biggest one and fired. The first shot only wounded him then something happened that may sound funny. The wounded one, instead of running towards the den tree, ran in the opposite direction, I figured to give his comrades a chance to get to safety. I shot him on the third shot, but will never forget what looked like an act of heroism to me."—William Hilty.

The mudhen is not a great diver. He likes wild celery, which grows beyond his reach beneath the surface of the water. So he follows the canvasback, a noted diver, and grabs a portion of the plants when the "can" returns to the top.—Remington Arms Co., Inc.



Left, Raymond C. Portzer, Fountain Hill, and right, William Morlock, Bethlehem, proud owner of the 175 lb. hog dressed 8-pointer killed last season.

A NEW FIELD TRIAL

By THOMAS F. GWYNN

Editor's Note—Although Mr. Gwynn furnished a descriptive account of the various stakes we are taking the liberty of eliminating all except the winners, because a full account of the trial will appear in the American Field . . .

About March first, a group of the Greene County boys got together for an evening of dog stories and field trial memories. From this meeting, a new field trial club grew into being, and arrangements were promptly made for a spring trial to be held within two weeks. Believe you me, those boys then got busy, for there was no time to be wasted what with arrangements to be made for advertising, grounds, horses, and birds, and invitations to be sent out by the score. However, by Sunday, March 12, everything was in order and the trial got under way.

It has been some years now since trials were run in Greene County, but all those who have followed the game are sure to recall the stakes that were run in the early 1900's at Carmichaels, Pa., where many champions won their fame and where practically all of the trainers of that era (professional or otherwise) paid at least one visit.

Something new was added to this trial, with pigeons being used as the planted game. Four native bevies are known to be on these grounds, along with several of the ringneck pheasant. They were seen the morning of the trial, and a native bird was raised under judgment. When the club officials discovered it was impossible to obtain game birds, they hesitated, then decided to go ahead with pigeons, as they had previously tried these birds with some fifty dogs and found them as nearly perfect as any planted bird. By the time the trial was concluded, we knew that we had seen as much bird work, and really good bird work, as in any one-course trial of the past running as many dogs as were run here. This would tend to prove that for the good of the game, when it is not possible to secure game birds, we should do well to use the pigeon. At least there are no weak birds to fly out a few feet then light to ruin some good dog's chance. They really get away.

First place in the Puppy Stake went to Airey's Beau Adair, a pointer owned by Arthur Airey and handled by Mr. Gwynn Seabright's Fox, pointer, owned and handled by Roy V. Clayton, took second honors, and Rapid Wasp, pointer owned and handled by J. F. Getty placed third.

In the Open Derby Stake Surracho's Easy Stride, a pointer, owned and handled by C. L. Holman won top laurels; Airey's Dawn Patrol, pointer owned by Arthur Airey and handled by Mr. Gwynn placed second; and Burma Girl, setter owned by Dr. W. A. Cave and handled by L. R. Harold, placed third.

The Open All Age was won by Air Pilot's Wedgewood, pointer owned by the Overholt Brothers and handled by Sam Overholt. Second place went to Equity's Citation, a setter owned and handled by Mr. Gwynn; and third to Ted's Saucy, a pointer owned and handled by Nick Cornelio.

In the Open Shooting Dog Stake, Skyrocket's Duchess, a setter owned and handled by W. Brush was tops, with Ted's Saucy owned and handled by Nick Cornelio second, and Dr. Brickley's Flush, a setter owned and handled by John R. Murphy, third.



F. S. Ambrose, McConnellsburg, member of the Fulton County Sportsmen's League, bagged 90 reds and 7 grays over a two mile trapline in Fulton County last season within two month's time.

"TWO FOX TALES"

"While hunting foxes back some four or five years ago I had a rather peculiar but interesting experience. I had been in one particular locality four or five times and each time the dogs would strike a trail, and about the same spot each day the chase would end. I had what I thought was a pretty fair pair of hounds, so I resolved to try and work out this mystery. I got there one morning after it had snowed the day before and then turned to rain. A crust was on the snow and I couldn't see any tracks, but the dogs knew he was there and they started him on the rounds. I hurried to about the spot where the chase had ended in the past and sure enough the dogs were there circling all around, but no soap. There was only one tree handy that I could lean against to get my wind and that is just what I was doing. This tree was leaning towards the South, and as I was resting I noticed some snow on the first bump that had been disturbed. On further examination I recognized a fox track in it. Looking up a little farther I noticed a hole big enough for a fox to go in. I climbed up and looked in but it was all dark and quiet. Coming down off the tree I started to dig around the base and then my old dog Tom started to dig and whine, which later turned into real barking. I climbed back up to the hole and put a large stone in it and went down to the first farm and borrowed an axe. I cut a hole at the bottom large enough to let my little creepers in, but the fox went up the tree beyond the hole. When I pulled the stone out I could see his tail, so I reached in and got hold of his tail and brought him down very carefully until I could see his head and shot him with my .22 pistol. That's fox tale number one. A grey one.

"On the sixth day of March, 1944 there was snow on the ground and frozen hard, so I decided to wait until early noon and then go out to try to kill old three-legs. This was an old red fox I had chased before, had seen her but never close enough to shoot. So that afternoon I had not gotten very far up in the woods when I found her track. I put the hounds on her and the chase was on. I knew about where she would cross and hastened to that place. This time she made a mistake. She almost ran into me and thus ended the career of old three-legs. When I picked her up I noticed that she had seven nipples sucked. Now I was commencing to feel guilty. That meant that there were seven little babies somewhere on the mountain that would surely starve to death and I didn't want that charged against me. I wondered if it would be at all possible to back track her and find them. Well, I certainly will try, I told myself and that is just what I did. Believe it or not, I tracked her back to the old tree where I had gotten the grey fox four or five years ago and there lay seven little red foxes that didn't have their eyes open yet. I put all seven of them in my hunting coat and started for home. I gave them all away without any trouble, as everyone who saw them wanted one. They were given the best of care and attention but all died. They were killed with kindness."—By Jack Crist, Deputy Game Protector, Chambersburg.



Photo by Neil Dewey.

Murl Clute, Union City, his dog "Mose" and three ringtails bagged along French Creek, Erie County last November.

The skunk gets his name from the Wabenakis Indian name "seskunkus." The chipmunk was known to the same tribe as "acheepunke" and woodchuck comes from "uachooke" or "wai-choo-uke."



A nice one bagged in McKean County last fall by A. E. Murphy of Turtle Point.

Field Notes—Continued

The Beaver Sportsmen's Club was very active last winter. Among other things it furnished members for committees on War Loans and Red Cross drives, and was included in groups discussing civic improvements and planning for economic industrial development. The club's Fish Committee helped put out over 4,000 trout in various streams in the county, and its Game Committee distributed quite a few ringnecks this Spring. The club is planning to raise pheasants and probably quail this summer. Glenn C. Dodds, Secretary, said it made no attempt to stock rabbits as prices and conditions made it inadvisable.

Dodds also said that membership is holding up very well and the Committee expects to increase it this year. A number of members helped thin out foxes where farmers had reported losses of poultry.

The club plans to send Game News to members in the service, a gesture being made by quite a few sportsmen's organizations lately.

"The Island at the mouth of the Clarion River on the Allegheny River has become a regular nesting place for wild ducks, geese and swans. On the morning of March 16, there were hundreds of ducks of all kinds, one flock of about 50 swans, and a small flock of geese."—Game Protector Levi Whippo, Parkers Landing.

"While patrolling in various areas where pheasants had been released, I found a cock bird that had been recently killed. Unable to determine what had killed it, I set some steel traps and caught a great horned owl."—Game Protector, W. T. Campbell Franklin.

The Pigeon Creek Sportsmen's Association, of Cokeburg, recently subscribed to Game News for one year for 21 of its members in the armed services, according to G. R. Young, Secretary.

IT TAKES A FOX TO CATCH A FOX

As far as the New York State Conservation Department can learn, Albert Fox, local Steuben County farmer, is the State's 1944 champion trapper. He averaged more than $100 weekly between November 5 and April 1 while harvesting a fur crop he sold for about $2,500. "That crop money ain't hay," Albert told reporters. "—Fur from it."

Fox is a versatile trapper. But fox trapping is his specialty. Starting early in November with a line of less than 30 traps he took 75 foxes by Christmas and sold them for an average of $12 each. By January red fox fur begins to fade—and the muskrat season gets under way. So Fox turned to his leased muskrat marsh and took 253 furry inhabitants from it and from nearby streams and ponds. This muskrat harvest sold for about $750. During the last two weeks of March when the beaver season was open in Steuben County, Albert and his wife (who set and tended her own traps) took the maximum number of beavers permitted—12. They sold the dozen pelts for a flat $500!

In addition, Fox caught 40 skunks (averaging $1.50 each), 13 mink ($14 apiece), 21 raccoon ($8), 15 'possum (50c) and two weasels ($1.50). This incidental fur collection sold for more than $400.

To top off the Winter's work, Albert made the first cutting on the Christmas tree plantation he set out six years ago on a bald hillside useless for ordinary farm crops. The initial harvest brought him $200—and seedling trees awaited planting as replacements.

Fox's trapping and Christmas tree business required little cash outlay.

"The whole lot of my traps didn't cost me $50," he recalled, "but I always keep 'em in good shape, especially the fox traps which can't have any smell of rust on 'em. I bought a new $40 boat to use for beaver and a $4 one for the 'rat marsh. The special lures and baits I used set me back about $6 and I'm going into that business for myself next Fall. My license cost $2.25. Outside the wear and tear on the old jalopy—especially the skunk pew—they were about the only expenses.

"The best part of it," he added, "is that I left plenty critters for seed. You know you've got to cultivate your fur crop just like your farm crops. Take care of your brush piles and briar patches and you'll have rabbits—and where there are lots of rabbits you've got foxes. Fix up your 'den trees' in the woods for 'coon and steer clear of grass and brush fires. When I keep the edges of the brooks planted up to stop erosion and when I make little pools—that means a better finny population—and that brings the mink. When I keep the old woodchuck holes cleaned out, that means there's a place for more furry tenants. And you'd be surprised what you can do to make a marsh produce more muskrats.

"Some land," he added, "ain't good for anything but wild crops like fur, or trees. I've got some good soil on the flats of my 130 acre farm—average 250 to 300 bushels of potatoes to the acre. But last year the first time I broke much better than even on 'em. I get some good canning crops to be sure and my 300 laying hens produce dividends. But there's a whole lot more idle land around here than cultivated land."

Fox obviously knows how to make use of it.

"Ten beaver trappers from the Pocono Lake section caught 22 beavers. They sold the skins as one lot and received $1017. The average for the lot was $46.22. I believe this figure to be an all-time high for Pennsylvania beaver pelts."—Game Protector Paul L. Failor, Mt. Pocono.

"Several weeks past, Joe Guski, who has a farm on the Blue Mountain near Game Lands No. 106, shot a golden eagle in the act of killing a drake duck on his pond. He did not know at the time what kind of a bird it was, and therefore was late in reporting to me. Mr. Guski said he fired two No. 2 shotgun shells and wounded it in the leg, but I believe a wing was hurt or surely it could have escaped. Two weeks later I liberated the bird on Hawk Mountain Refuge, after checking on its ability to fly. During the time I had it, it ate everything we gave it. On one day this included two chickens and one rabbit. When being liberated it made a running take-off on the road. I have been wondering if this is their way of getting in the air, or if its close confinement for a five week period made it stiff."—Game Protector John I. Hendricks, Tamaqua.



A freak antlered buck killed by Robert S. Young, Hershey. The one antler between the two large ones has four or five points. The animal was killed at about 250 yards with a .270 using a 150 grain bullet.

"The most unusual occurrence of the Spring migration so far has been the surprising number of canvasback ducks both on the Pymatuning and Conneaut Lake. For the past several years very few of them were observed in this vicinity, but this year they seem to be the most abundant species of the diving ducks. The fact that the ice was very slow going off the lake had a tendency to cut down the number of early duck flights. Very large numbers of Canadian geese also visited the Refuge this year, but as yet I have not seen the usual numbers of whistling swans.

"The eagles have returned and a pair of adults are again constructing a nest, evidently in the same spot as last year. For four years in succession now the nest has been blown from the tree by strong winds sweeping across the lake."—Game Protector Raymond M. Sickles, Titusville.

Hats off to the Springfield Township Farmers' and Sportsmen's Association, York County, whose Secretary, Herbert Geiselman, Jacobus, writes as follows:

"On February 20, 1942, a group of 12 enthusiastic sportsmen effected an organization, later assuming the above mentioned name, for the purpose of preserving game and promoting sportsmanship. With the assistance of Game Protector Clinton Ganster, the organization took proper shape, and within a year had 250 members.

"In 1942 the club erected a pheasant pen with a capacity of 100 birds which were received from the State Farms at the age of six weeks. Ninety-nine of them were successfully raised for restocking. In 1943 it raised all of the 100 birds received.

"It subscribes to GAME NEWS for all Service Men who were members before entering the Service. It also salutes Game Protector John P. Eicholtz, who recently entered the Service, for the help he gave the association."



G. Wm. Fraley, right, McKeesport, with a 426 pounder killed last season on the first day in Potter County.

"While removing Safety Zone Signs on Farm-Game Project No. 46, Montgomery County, I saw 35 pheasant hens, 3 cocks, 3 rabbits, 2 gray squirrels, and a couple hundred doves.

"On March 24 I investigated a report regarding some foxes which were living on a 125 acre tract of land that had been planted with pine trees and other shrubbery. A rank growth of blackberry also covered the tract. The two large hounds finally managed to jump a gray fox which would only crawl around the blackberry. While waiting for a shot at Mr. Fox, 9 rabbits ran past me before I finally managed to put some lead into the animal and end his killing days. The remains of rabbits and ringnecks were very common on the tract. Another party advised that he saw 3 gray foxes together one afternoon and 2 reds together at an earlier date on the same area, which is located within a stone's throw of the city of Lancaster."—Game Technician Albert R. Bachman, Reading.

"Recently while patroling State Game Lands No. 29 I heard some crows making a big racket under some pine trees. I went to see what the fuss was about, but they flew away before I could get close enough. However, I looked around and found blood on the ground and wing marks where they had been fighting a great horned owl. Finally I discovered the owl in a pine tree. It was so nearly exhausted that it could fly only a short distance, so I proceeded to finish the work of the crows."—Game Protector George H. Burdick, Tidioute.

"Lynn Allen, a local sportsman, reported that one day in early April he and his dog were in pursuit of a red fox. The dog chased the fox into a hollow chestnut tree. Mr. Allen located Reynard in a hollow limb about 14 feet from the ground. He placed a trap in the base of the tree and plugged the hole, then climbed up and poked the animal down with a stick until he finally caught it in the trap . . .

"Ducks really go for food put out for them during migration. In early April I put out several bags of buckwheat on a marsh located on State Game Lands No. 85. At that time there were about 75 ducks on the area. Later I went back with more buckwheat and while putting it out flushed several hundred ducks. They circled until I finished distributing the grain, but settled down and continued feeding as soon as I got back to the car. By this practice I hope to retain more nesters in the area. The ducks are mostly blacks, baldpates, and mallards."—Game Protector Edward D. Simpson, Cambridge Springs.

"William Fogg, river boat captain, reports that on March 24 around 4:30 P.M. he saw a flock of about 20 snow geese flying low over his boat heading west down the Ohio River. They were acting like they were looking for a place to stop over night."—Game Protector J. Bradley McGregor, Beaver.



Barbara Ann Linder, daughter of Sheriff L. E. Linder of Warren County, has been trapping rabbits in Warren Borough for Game Protector George Norris and doing a pretty good job of it.

"I was very much surprised to receive a report on March 25 that a beaver had been run over and killed by a car in the borough of Rice's Landing, Greene County. Upon investigation on the 26th I learned the animal had been staying in that community for some time and had been seen crawling up on the lock of the Monongahela River which runs along the edge of the borough. To the best of my knowledge there were never any beavers in that section before. The only others in Greene County comprised a small colony on one of the tributaries of Wheeling Creek in the extreme western end of the county. This colony was started from two females and a male which were stocked in that section about ten years ago, but which were all caught or moved during the last open season."—Game Protector John F. Blair, Waynesburg.

"We are just a small sportsmen's club, affiliated with the Elk County Sportsmen's Association, with our headquarters in a remote corner of Elk County, back where the coyotes or 'wolves' do their howling.

"Our regular monthly meeting on April 7 was honored by none other than that fine little man, Dr. H. E. Kilgus, from Brockway, and Mr. M. E. Sherman, Supervisor of Division 'E'. Both gentlemen gave us brief talks on the activities of the Pennsylvania Game Commission. Later in the evening we were entertained by moving pictures presented by Ted Carlson, our local Game Protector.

"Our club to date comprises 139 members, of whom 15 are serving 'Uncle Sam' in a big way. We are sending these boys in the services a subscription to GAME NEWS for one year."—Lawrence W. Rapp, Secretary.

"The night of March 29 a group of Somerset Sportsmen and myself shot crows on a roost near Acosta. It was a dark night, but between 75 and 100 birds were killed."—Game Protector Millard M. Crooks, Somerset.



HUNTERS YOU KNEW

Bibulous Bo

Not once did Bo Dean
Tote a canteen,
He shore was a lazy cuss;
He'd drink like a mule
At any old pool,
And never complain or fuss.

Though the water was stinking,
That didn't stop his drinking,
He'd push the green scum to one side;
He just couldn't avoid
The inevitable: typhoid!
Yep . . . that is the way that Bo died

—*Carsten Ahrens*

RABBIT REPELLENTS

Since live trapping of rabbits during the summer months is very difficult, the Pennsylvania Game Commission suggests the use of one or more of the following repellents based on a series of tests by the Pennsylvania Game Commission and the U. S. Fish and Wildlife Service in cooperation with the Eastern Regional Research Laboratory, U. S. Department of Agriculture, Philadelphia, Pa.

1. Dried blood may be used as a dust, in which case add 5% flour and sprinkle the dust directly on the plants when they are moist using about 8 ounces to 25 lineal feet of row. If applied as a spray dilute dried blood with water and add one half of 1% flour or some kind of mild soap to the mixture and apply directly to the plants.

Dried blood is also an excellent nitrogenous fertilizer and an oversupply of nitrogen may result from too frequent applications.

2. Two tablespoonfuls of powdered alum mixed with one quart of wheat flour used as a dust. Mix well and cover plants thoroughly.

3. Ordinary fine tobacco dust of the usual insecticide grade dusted thoroughly over the plants. If used with powdered alum mix two ounces with one pound of tobacco dust.

4. A commercial grade of aluminum sulfate may be used as a spray. Cover foliage thoroughly. It can be easily washed off edible plants such as lettuce. The following formula is suggested:

Spray Formula	Large Lot	Small Lot
Aluminum sulfate (commercial grade)	5 pounds	4 teaspoonfuls
Hydrated lime	20 pounds	5 tablespoonfuls
Water	100 gallons	1 gallon

5. Arsenate of lead mixed with a nicotine compound such as Black Leaf No. 155 makes a good rabbit repellent, but it must not be used on any mature edible plants such as lettuce or swiss chard. It may be used on cabbage until the head begins to form. Do not use on beans since arsenate of lead may burn the foliage. For these plants substitute cryolite in the same proportions. The following formula is recommended:

Spray Formula	Large Lot	Small Lot
Black Leaf 155 (a nicotine compound)	6 pounds	7 teaspoonfuls
Arsenate of lead	6 pounds	3 tablespoonfuls
Sulphonated oil	2 quarts	4 teaspoonfuls
Water	100 gallons	1 gallon

6. Tincture of asafoetida used as a spray and mixed as follows: 3 teaspoonfuls of tincture of asafoetida, 6 tablespoonfuls of powdered alum and 1 gallon of water. Apply thoroughly to plants but do not allow moisture to drip onto the ground.

The following are some additional suggestions:

1. All teaspoonful and tablespoonful measurements are to be level.

2. When a duster is not available, a cheese cloth bag may be used to sift the dust upon the top of foliage. It is not essential to cover the under surfaces of the leaves with dust as it is usually required with insecticides.

3. Dust should be applied early in the morning when the plants are covered with dew or immediately after a rain (precautions should be taken when dusting wet plants especially beans. The moistened plants should not be touched by the equipment or body).

4. The upper surfaces of the leaves should be thoroughly covered with spray. The compressed air sprayer is the most satisfactory, but if no sprayer is available a whisk broom or brush may be used.

5. Flour, mild soap, skim milk or some commercial spreader should be used with a spray so that it may adhere to the foliage for a longer period. If washed off by rain another application should be made immediately.

6. Powdered alum and tincture of asafoetida may be purchased at drug stores; dried blood from some fertilizer plant or a seed or hardware store. The other materials suggested may be secured at seed, insecticide, and hardware stores.

7. Fencing small areas may be a solution to the rabbit problem. If wire fencing is not available a heavy grade of tar paper may be used. Such fence should have a height of 18" and will require frequent and heavy stakes. All fences must fit tightly to the ground and it is preferable to bury a fence about 6" below the surface.

A DEER STORY

"You will not believe me perhaps but I must tell this deer story anyway. You might give it 'The deer hunted the hunter' or some such title. I live on a farm which is almost two miles from any town. This is almost in the center of untenanted farm land. There are wide hedges running down a steep bank behind my home. The deer love the shumake (Sumac) as we call it, also the briars and apples from under the trees in my orchard. I have seen as many as thirty or forty deer back of the house. My husband, who is now in the army, used to ride home with the Game Warden, Mike Dunbar. One morning at quarter of five Mike drove up into the yard. He turned his spotlight on them. He and another man, John Sabastine, claimed there were forty.

"The beauty of it was that when hunting season was on my husband was either just dressing, or washing his feet or something everytime I located one. It would be gone before he picked up his gun.

"One night my little boy left a dishpan full of potatoes, apples and salt, which he was supposed to take down to our young stock, in the woodshed. That night I went out to get some coal. I turned on the light and there to my surprise was a big buck eating out of that dishpan. He charged straight at me. First I was scared, then mad. He would harm the one who gave him a handout, I said to myself. I picked up an old axe which stood by the door and let him have it between the eyes. He charged me again then, as I slammed the door, turned and ran."—Mrs. Charles Slawson, Genesee.

Evidence of the fact that gray foxes increased considerably during the past year is indicated by the claims submitted for the $4.00 bounty during January, February and March this year. There were 1400 more of these animals probated than in the same period of 1943, a total of 6566. Their hides were also worth about $3.00 each.

There is no bounty on the red fox in Pennsylvania, but sportsmen locally are helping effectively to control them. Thousands of hunters last winter learned for the first time that fox hunting is royal sport, and it is predicted it will become increasingly popular as an off-season recreation, to the point perhaps where no other control measures will be necessary. Red fox hides this past winter sold for $8.00 to $12.00.

Joe O'Bryne, a Sports writer of the Philadelphia *Inquirer,* says his favorite story is about the fellow who had a fine hunting dog. When he went duck hunting he'd merely pick up his long-barreled shotgun and the dog would go running to the boat. If he was going after birds he'd merely pick up his shorter field piece and the dog would head for the fields. If he was going to hunt squirrels he picked up his rifle and the dog would take off for the woods. One day the man decided he'd fool the dog so he picked up his fishing rod. The dog disappeared and when that fellow found him he was out behind the barn digging worms.

PENNSYLVANIA Game News



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JOE WOLF

July 1944 Ten Cents

PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XV, NO. 4

EDITORIAL

July, 1944

IN THIS ISSUE

★

Hawks in Flight
By Jacob Bates Abbott

★

Hits, Misses and Home Runs

★

Yellowlegs
By William Rowan

★

Seasonal Browsing of Woodsy Plants
By W. C. Bramble and M. K. Goddard

★

Backtracking
By the Editor

★

Animal Babies
By John Eric Hill

★

Highlights of the Ninth Northamerican Wildlife Conference

★

Cover by Joe Wolf

★

Conservation Education

Almost a decade ago several State conservation agencies, including the Game Commission, together with the Pennsylvania Federation of Sportsmen's Clubs and other groups and individuals, began laying the ground work for establishing conservation education programs in the State Teachers Colleges and public schools.

In subsequent years numerous conferences on the subject were held. Representatives of the interested groups went to other states where the subject was being taught to the children during the regular school period, and visited outdoor conservation laboratories where teachers were given summer courses on a credit basis, for the purpose of securing information. The accumulated data accruing from these various conferences was presented to the presidents of our State Teachers Colleges and to officials of the Department of Public Instruction for analysis and study with the hope that out of it some program could be developed for general use in the schools of this Commonwealth.

Such a program is developing. In fact, the Board of Presidents of the State Teachers Colleges on November 14, 1940, approved a free elective in Conservation of Natural Resources of three semester hours for all institutions and the State Council of Education, in order to further encourage the employment of teachers in the field of conservation education, put its stamp of approval on the certification of teachers in that field. Such certification makes possible the reimbursement of full-time salaries paid by school districts for conservation teachers. The recommendation was approved for the years 1942-1943 and 1943-1944, and will undoubtedly be continued if sufficient interest is shown in the subject.

The Department of Public Instruction considered seriously the establishment of an outdoor conservation laboratory for extra curricular work during the summer months, with credit from one of the Commonwealth's recognized colleges or universities.

These are the most important single steps that could possibly have been taken so far, and they reflect admirably the spirit and enthusiasm with which our educators are tackling the job. The way has been paved for closer cooperation between the State conservation agencies and the Department of Public Instruction, and now that post-war plans and programs are assuming greater proportions it is hoped that the matter of integrating the subject in the school curriculum will be accelerated. The rapidity with which this is accomplished will depend wholly upon the willingness of all interested to cooperate.

There remains a great deal of preliminary work, especially in providing the necessary teaching guides, text books and visual aids for the use of teachers and pupils. A lot of material is available in the various conservation departments which have been presenting it to the best of their ability, wherever and whenever possible. It was through such literature and aids that sentiment for establishing conservation education in the schools had its origin.

The time for more concerted action has arrived, however, and those concerned should pool their knowledge and resources immediately in order to expedite the program. Its importance was further borne out during a special meeting of the State Council of Education held in the Forum of the Education Building in Harrisburg on June 20, at which time a preliminary report of the plans and procedures for the post-war period was heard. Recommendations concerning conservation education were included among the various items under consideration.

But we need not wait until after the war is over to promote the subject. That is merely standing still, or even losing ground. The time for action is now—not after the war is over.



Some states conduct outdoor conservation laboratories for teachers on a credit basis. This photo was snapped during a field excursion at a Tennessee conservation summer school.



Hawks in Flight

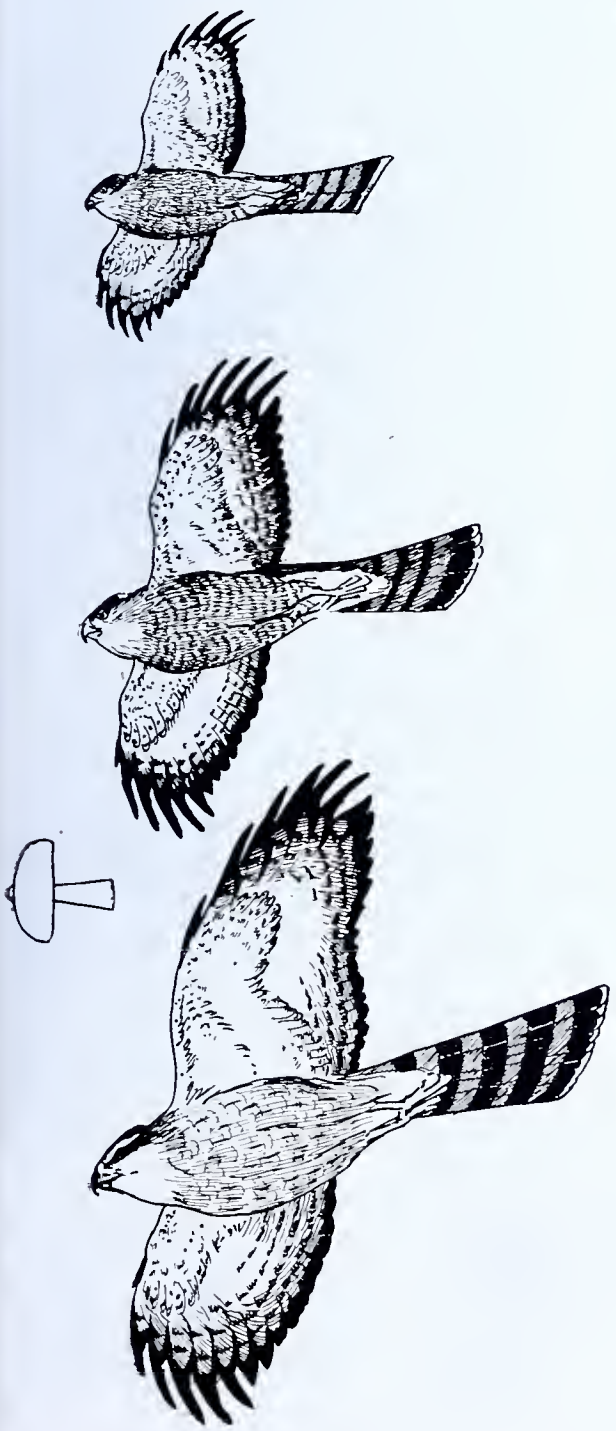
By Jacob Bates Abbott

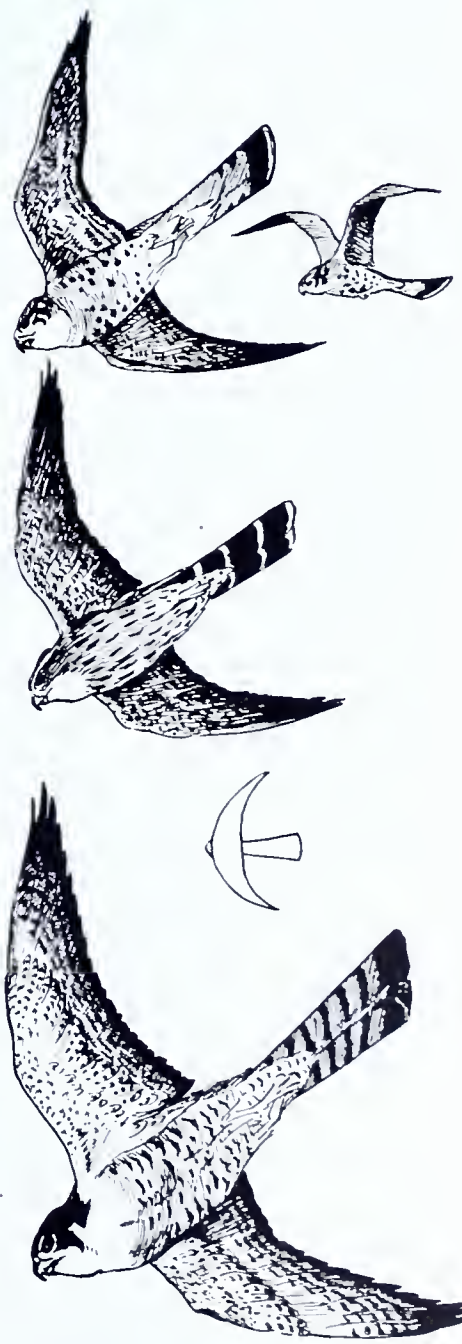
Illustrated by the Author

EXTENDING through Berks and Schuylkill counties is a forty-mile ridge, identified on government topographical maps as Blue Mountain. In recent years "Hawk Mountain" has been the name most often applied to a peak of this wooded greyback in the great Appalachian system.

For some reason not yet clearly defined, but probably not unconnected with air currents, this ridge is a concentration lane for hawks on their fall migration. Coming from the northeast, they fly down Blue Ridge by the thousands, and were, in former years, slaughtered by heroic gunners from the nearby coal mines and surrounding farms. I tell you it takes courage and intrepid marksmanship to sit on a rock on a mountain top and bang away at hawks floating up on the breeze or sailing over at an altitude of all of forty or fifty feet! And when I tell you that four hundred and twenty-five broad-wings have come over in an hour, you can judge to what heights sportsmanship attained on this rocky peak. Thousands of mouse- and rat-destroyers, invaluable aids to every farmer, were wiped out each year; hundreds were left to die of starvation, amid the oaks and rhododendrons crippled from festering wounds.

Happily this is a thing of the past. The Emergency Conservation Committee of New York City, aided by contributions from bird lovers from all over our country and Canada, has made of the mountain a permanent sanctuary; a place of security for these interesting migrants, and an observation post of joy to students of bird life.





From top to bottom, left: Sharp-shinned Hawk; Cooper's Hawk; and Goshawk.

From top to bottom, right: Sparrow Hawk—hovering attitude; Pigeon Hawk; and Duck Hawk.

(Continued on page 26)



Hungarian Partridge.

Hits, Misses and Home Runs

THE history of the introduction of game birds and mammals into Pennsylvania is an interesting story, which shows the many difficulties encountered by the Game Commission in its efforts to provide better hunting conditions. Take the ringneck pheasant for example. Its debut was in the 1890s, having been first introduced by private individuals or clubs. Old records show that it was classed as a game bird with regular seasons as early as 1902. However, the birds did not show any substantial increase until the Game Commission, with some apprehension, made its first effort to establish them permanently in 1915. The reason they didn't gain a toehold more quickly was because they were not stocked in large enough numbers, the seasons were too long and bag limits too large, and in the beginning hens were not protected.

Since 1915 the Commission has stocked pheasants each year, the largest stocking occurring in 1941 when 66,334 birds were released. Last year 46,753 were liberated. Taking it by and large, it is the one "furriner" that really clicked, as it were. It has taken the heat off the ruffed grouse, and there is every reason to believe that it will continue to increase in popularity and numbers in good crop farming regions.

Since the ringneck proved so successful as a naturalized citizen a search was made for another pheasant which might prove equally as good. Accordingly the Reeves pheasant, introduced into the United States in the 1920s, held certain possibilities for wooded sections not suitable to ringnecks. So the Commission, rather then let any stone unturned that might conceal a fortune, started propagating a few and purchasing others to find out what stuff they were made of, and whether they had anything on the ball or not. To make a long story short, these birds got nowhere, and the Commission stopped paying off on them in 1936.

Other exotics just downright refused to play ball. Look at the Hungarian Partridge. For an ideal sporting bird it was supposed to have a high batting average. Well, it had its chance in the Keystone State for over 20 years, but there is no evidence since the Commission began stocking them in 1925 to indicate they ever came close to first base.

Out of 28,000 purchased from Czechoslovakia during the aforementioned period, plus around 8,300 raised at the Commission's game farms, there is just about nothing left to show for the more than $150,000 spent. Their habit of nesting in hay fields was bad, and in the wintertime they were prone to feed on the bare wheat fields, which made them easy targets for all predators. But there is the old saying "nothing ventured, nothing gained." You never get anywhere standing still.

While the Huns didn't take hold in Pennsylvania they are doing well in parts of Oregon, Washington, Idaho, the northern Prairie States, and the Prairie Provinces of Canada, where spring wheat and barley are the chief crops. The Commission made a pretty good deal recently with the Game and Fish Department of the State of South Dakota by trading 2,000 Huns, the last of its farm reared stock, for 4,000 wild trapped hardy South Dakota ringnecks.

Still another "furriner" that fooled us was the Chukar Partridge, native of India. He came knocking at the door with a lot of good references, such as being easy to propagate, sporting to hunt, and good to eat.

Although several sizeable stockings were made, both of purchased birds and those reared at the game farms, they just didn't seem to like our home field. One of the biggest troubles with them was their loud uniforms. Their color didn't blend with our landscape. These fellows weren't hardy pioneers either, and couldn't stand our Pennsylvania winters, so we stopped finding them homesteads here.

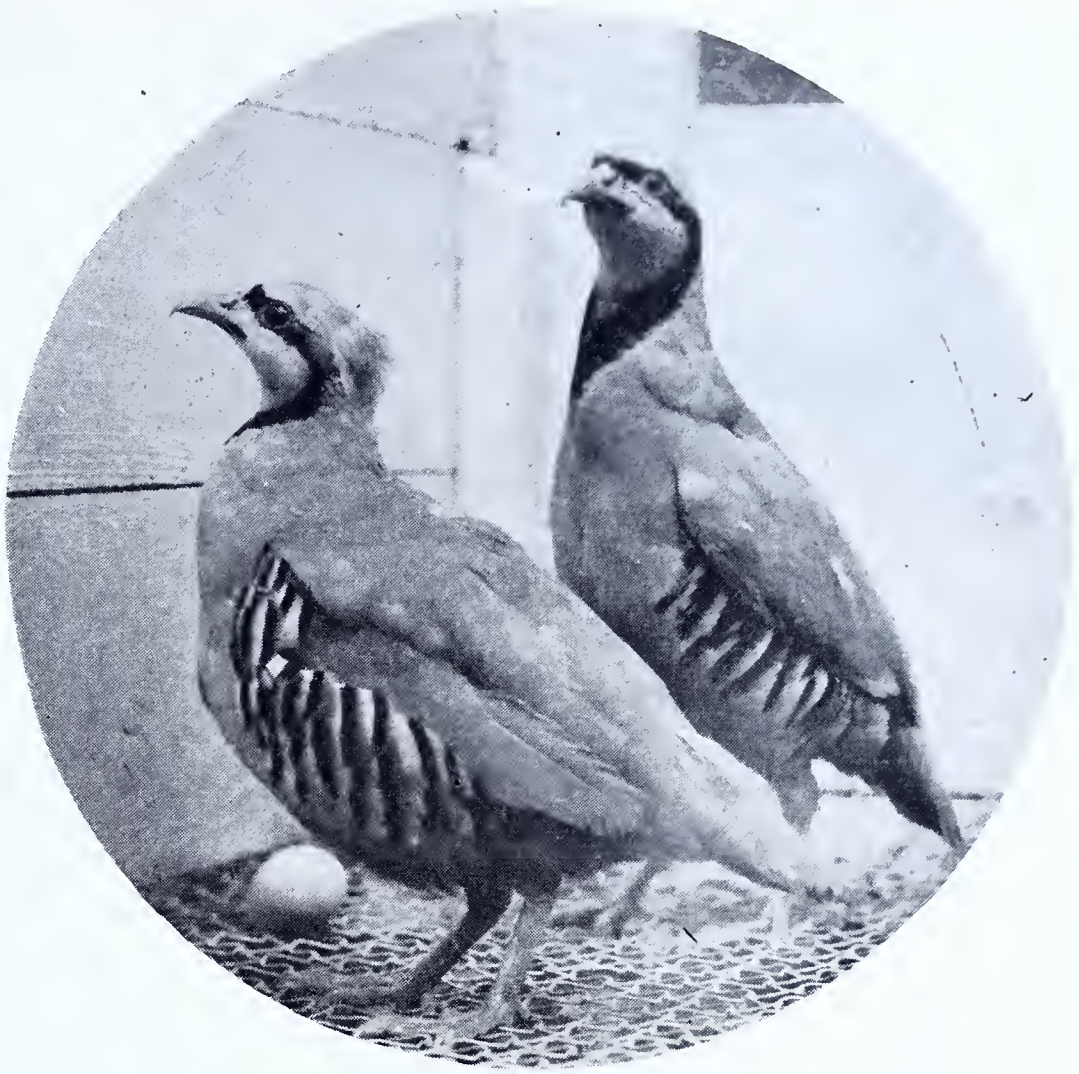
And now we've talked about exotics enough, so let's digress for a moment and consider some of the native species. The little bobwhite has a history as old as that of Pennsylvania, and with modern wire fences and clean-farming methods he's had a pretty hard row to hoe. Severe winters have badly depleted his ranks periodically, and today he is not as abundant as he should be.

The Commission is releasing as many as possible every year to help maintain a shoot-



Sharp-tailed Grouse.

A Story of Pennsylvania's Game Stocking Program -- its ups and downs.



Chukar Partridge.

able reserve, and there is no appreciable cause for alarm concerning Mr. and Mrs. Bobwhite and their relatives for the time being.

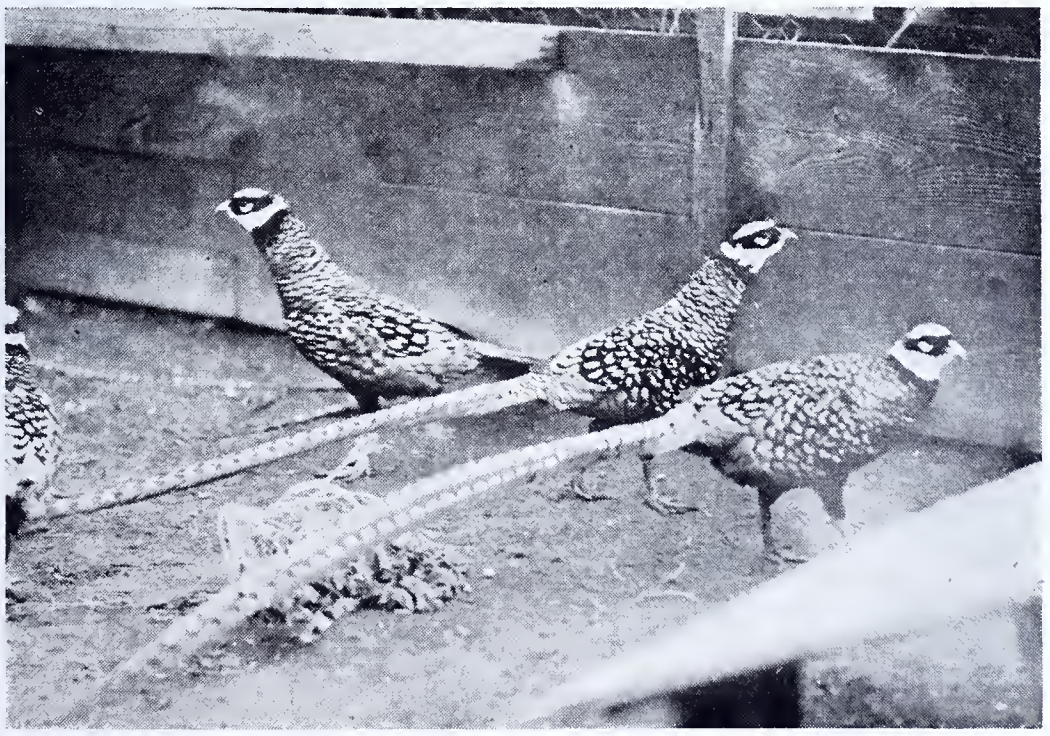
A few years ago the picture didn't look too rosy. In 1906, for example, their numbers were so small that the Commission purchased roughly 4,000 from Alabama to give the little natives moral support. This helped, but when additional aid was needed thousands of them were imported from our neighbor to the south, Mexico. From 1915 to 1931 we imported over 90,000 from the northern part of that country. Finally, in 1932, with the purchase of a farm and equipment, the Commission went into the quail raising business, and since then raised most of the birds which were stocked each year, recently averaging 20,000 annually. There have been in all a total of 238,190 quail released between 1915 an 1943.

A vote of thanks is due the farmers too, because they do a lot to help this cheery whistler through the winter. No one realizes better than they the value of the bobwhite as an insect and weed-seed eater, but too few of them appreciate the fact that without our briar patches and fencerow cover they can't survive in numbers.

The number of quail present is seemingly dependent upon the character of the winters, and the available cover and proper kind of food these birds must have to prosper. Thus, although natives, they cannot be considered as wholly self-sustaining in this state under present conditions.

Another member of the quail family, the Gambel Quail, from Arizona was tried as a game bird in 1919 but proved a complete failure.

One of the greatest trophies of the hunt to most Pennsylvania nimrods is a wild turkey. This shy splendid bird was well known to the Indians of Penn's Woods long before the Revolutionary War, but like so many of our native game birds was "hunted out." In order to preserve turkey hunting for future sportsmen some way had to be found to increase them.



Reeves Pheasants.

As usual, the first step taken to replenish the stock was to release birds, most of them mixed with domestic blood, purchased from other states and from private breeders. The earliest stocking record is in 1910, when it was reported that a flock of wild turkeys had been seen near Mont Alto for the first time in many years and that this flock was probably the offspring of two wild hens released at Big Flats in Adams County. In 1913 the Commission started propagating turkeys on the game refuges, raising 60 in semi-captivity on a Perry County preserve. Approximately 900 turkeys were stocked in 1916 and '17, most of which were half-bloods selected from large purchases made by table market dealers in the mountains of Virginia, West Virginia, and Tennessee, but from that time on they were either live-trapped in Pennsylvania from sections where plentiful and released on ranges where scarce or reared on the Commission's own turkey farm and special propagation pens in the heart of the wild turkey range. From 1915 to 1943 a total of 21,204 turkeys were released for Pennsylvania hunters.

In addition to stocking, certain laws acted as "builder-uppers" of the turkey populations. Two closed seasons were declared, one in 1913 and another in 1926. Also, certain unfair hunting practices, such as baiting, were outlawed and large scale winter feeding programs were carried on annually. At present, this king of the game birds is in-

(Continued on page 28)



Newly hatched young.

Yellowlegs

By William Rowan

FROM Patagonia to northern Alberta is roughly nine thousand miles. Double that distance for the round trip, and you have an idea of the stupendous breeding journey undertaken annually by one of Nature's strongest fliers—the greater yellowlegs. During spring and summer this bird is with us here in North America, but, while we shiver six months later, it is far to the south, some individuals going all the way to the southern part of the Argentine.

What prompts this long migration? Why do the birds return to the breeding grounds on almost exactly the same date every year? How do they know enough to follow a definite nesting routine when many of them never before have been parents? To find the answers to these and related questions has provided an interest for fourteen years. Of all the yellowleg's achievements, its unfailing punctuality is probably the most noteworthy. In those fourteen years the hatching date of the first young has fallen without fail fail between the 26th and 29th of May. This is remarkable timing for a bird that may have started its breeding trip nine thousand miles away.

If you will accompany me about mid-May to one of the larger muskeg areas, in which northern Alberta abounds, I will show you the greater yellowlegs at home. By that date all will be incubating; the earliest birds will have arrived two weeks before.

En route to the muskegs we see and hear the lesser yellowlegs—scores of them—as we pass patches of woodland interspersed among scattered settlements. But of their larger counterpart there is no sign.

Pressing northward, we leave the last farm behind us. Eventually, upon reaching the top of a ridge, we see a vista of lake, muskeg, and more ridges stretching to the horizon. The muskeg is sparsely sprinkled with stunted tamaracks. Like the grasses, these trees are still tawny, sere and autumnal-looking, for, although it is the middle of May, spring has not yet arrived. Many of the meadow-like areas are covered with water, for they are muskeg, not meadowland. The bottom, fortunately, is hard, since the ice has not thawed completely, and it provides us with a firm footing (even if it freezes our feet), thus facilitating the crossing to the next ridge. It is very different now from the treacherous, knee-deep quagmire it will be in another two weeks.

Crossing more ridges and more stretches of frozen marsh, we arrive at our first lake. A fringe of muskeg surrounds it, a quarter-mile wide in places. On this floating vegetation, as we look around the lake's edge, we see our first group of greater yellowlegs—seven or eight of them—feeding, preening, dozing. We assume now that we are in sight of their breeding grounds. At least, that is what I thought fourteen years ago when I saw my first party of yellowlegs in a similar habitat. But it took me three years of patient searching to discover that I was wrong.

We must go back to the ridges, through crowded stands of black spruce that rise from a bed of luxuriant mosses and are draped with picturesque lichens. We must make our way through tangled glades of fire-swept deadfalls, over sandy ridges and water-logged muskeg, until we emerge on an extensive flat of immature jackpines. Here and there stand isolated old-timers, burned and lifeless, reaching stark and blackened to heaven, survivors of fires that years ago felled their contemporaries. Charred, decayed, and crumbling with age, these lie scattered on the ground around us. It is here, far removed from the nearest lake, that we may expect to find our incubating yellowlegs. The nest probably will be within the shadow of one of these gaunt poles, once a stately jackpine, and will, no doubt, be immediately alongside a crumbling trunk on the ground.

Now we start a patient hunt. Inch by inch, foot by foot, we scan every yard of decayed tree trunk, choosing first those lying immediately around the still-standing veterans. Suddenly, as we walk by a moss-grown log, a large bird, with long, bright yellow legs trailing behind it, shoots heavenward from somewhere beside us and with a loud, ringing cry of "yup—yup—yup" circles us two or three times and then settles on an ancient pole to continue its yapping. We have walked almost on it without seeing it, so wonderfully did it match its surroundings. So implicitly do the birds trust to their protective coloration that one can approach to within two or three feet, without either noticing the bird or startling it into flight.

Keeping silent must be difficult for these usually noisy birds, but on the nesting grounds there is total stillness. There might be no yellowlegs near, judging by the complete quiet. Only the chance flushing of a sitting hen disrupts the tranquility. For a few minutes the distant spruces echo her remonstrances, but her patience soon gives out and, with her departure, peace returns.

In the spring, when the greater yellowlegs arrive at their destinations, no time is wasted in settling down. Viewed in general, the behavior of the birds is uniform, their pattern stereotyped. And yet there is variation and individuality, well exemplified in their incredibly lovely eggs. Each female lays a characteristic type, so much so that a bird can be identified with certainty by her eggs, if she returns—as she sometimes does—to breed with us two years in succession. Her eggs are true to type, yet individual, providing that mystic interplay of rigid inheritance and margin of variation that has produced the yellowlegs from the general stock of birds, the specific from the generic.

Mating, at the beginning of May, involves the selection of a site, the establishment of territory (demands of the yellowlegs in this



Incubating.

Photos by the Author, whose interesting story on the greater yellowlegs is being reprinted through the courtesy of FAUNA, official publication of the Philadelphia Zoological Society.

respect are extravagant), and the fashioning of the crude nest with its scanty lining of chips and debris. During this preparatory period both birds of a pair are together, and they are as noisy as jays. But after the laying of the first egg the male departs; his lady also leaves, but revisits the nest daily at about 11 A.M. to deposit another egg, until a set of four is completed. Then she begins sitting upon them in solitude and undisturbed tranquility. The exact period of incubation is unknown, but it is estimated to be about twenty-four days.

And what becomes of the males? Why, they are the birds we first saw down at the lake. That is their clubhouse. There they foregather, feed, play, and kill time, while their mates do the work. But when the incubation period is terminating and the eggs are due to hatch, a complete change overtakes the yellowlegs kingdom. During the nesting period all has been silent. Occasionally a lone bird has flown yodelling across the sky; down at the lake, especially when disturbed, the males have joined together in vociferous yelping, but this activity has been only transitory.

When the incubation term is nearing its end, all peace is over. The male returns to his mate and, taking up a vantage point on the tip of the jackpine nearest to her nest, sends out volley upon volley of abusive invective, "yup—yup—yup—yup—yup," a ringing and interminable complaint that can be heard a mile away. Any disturbing influence sets him off, whether it be the appearance of a man, crow, or homely old moose that comes within his range of vision.

The moments the chicks are hatched and dry, they are solicitously conducted to the nearest muskeg. And there, in an oozy, quaking environment that fills the staunchest human heart with revulsion and terror, with feet as big as snowshoes (built to scale), but admirably designed for the terrain, they safely grow to maturity under the faithful, if noisy, guardianship of their parents. Four weeks later they are capable of looking after themselves. When they have achieved independence, the adults, like so many other shore birds, leave the fledglings and commence their own protracted journey to the south.

Considerably later the young, now strong on the wing and wise to the general business of life, turn southward like the adults, but they are greenhorns in the matter of migration. Nevertheless, without guidance, without training or education, without compass or charts, and without realizing that winter might soon overtake and exterminate them, they set out over countless leagues of unknown territory, to winter on predestined grounds equally unknown, in the salubrious climate far to the south.

What prompts this unswerving behaviorism? What sends the male back to his mate just when the nesting period is drawing to a close? During incubation he has been an idle clubman, yet apparently he has a conscience; when most needed, when the eggs are due to chip, he resigns his freedom and returns to duty. Not only his mate, but the whole world is informed of the fact. What told him that the incubation period was almost over? Last year he may have been hatched himself; he may never have been mated previously; certainly he cannot know anything about the performance that we term incubation, much less can he have knowledge of its duration. Yet there he is, at the top of the old jackpine stump, vociferating to high heaven at the appropriate moment, ready to assume his share in the rearing of the young.

This is perhaps the most arresting single episode in the yellowleg's career; this precise evaluation of time without clock or calendar; this accurate knowledge of something that has never previously befallen him; this unearned increment that completely changes his outlook and redeems his character at the crucial moment.

The answer to the problem still lies partially in the realm of speculation, but the attempt to solve it accounts for our persistent quest of the yellowlegs. As we watch one precariously balanced on the tip of some tall spruce, preening in the sunshine that it loves so much and to which its forebears have been exposed for centuries, we probably are watching part of Mother Nature's winding up of the yellowleg's clock and the setting of its calendar.

Throughout their history these birds almost certainly have bred in the North. Throughout their history they have experienced the lengthening of the days of spring in the northern wilderness. Always it has been imperative that, upon the birth of another summer, they should bring their babies into the world, for in such accurate timing lies their one chance of survival.



Nest and eggs. The eggs are pale, olive-green.

Through the passing centuries the clock has been evolved. Annually it is wound and reset with a key that never varies—day length. As the sun gains height and the days grow longer, the fact is impressed on the intricate mechanism of the bird's physiological ensemble. Each day it remains active a little longer—each day the fact is enregistered by a delicately adjusted and sensitive nervous system, the intermediary between its hormonal complex and its environment. Food, climate, weather, barometer, all are unstable, but for aeons of time the waning and waxing of the days—Nature's key to the rhythmic clock of life—have remained unchanged.

Here on the breeding grounds the clock is set, the rhythm of the ductless glands attuned. It may be the biochemical clock of the male (the testicular hormones) that terminates his bachelor career, that takes him back to home and family, that times him without experience or forethought, and that converts him from the clubman to the model husband.

Next spring the yellowlegs will be back. Again the muskegs will resound with their ringing yodel. And again we shall wonder at the miraculous fact of their punctilious and infallible return.



Approaching the nest, which can be seen in left hand corner of photo.



Deer browsing.

Seasonal

Although somewhat technical in presentation, due to the nature of the studies involved, it is believed this little article will be of particular interest to our readers, especially those who are deer hunters and who have been close students of the deer problem.

THE bear-oak type has been estimated to cover over 2 million acres in Pennsylvania. It presents a difficult problem in forest management because of the low productivity of the tree species present and the difficulty encountered in most areas of effecting improvements. The high cost of planting and silvicultural treatment, and the long time required before productivity can be restored, reduce immediate forest practice in many portions of the type to fire protection and encouragement of natural succession. The use of such areas for game management, either during the period of protection and recovery from ax and fire, or by directing the course of plant succession towards permanent production of game food and cover, seems to be a promising solution for their utilization.

General feeding habits of white-tailed deer in the forests of Pennsylvania have indicated that deer may browse on a wide variety of woody plants. Although their diet seemed to include nearly all trees and shrubs common to Pennsylvania, a general indication of food preferences was given by H. E. Clepper who listed certain species as having been heavily browsed by deer while others were but lightly browsed. In adjacent states more intensive recent investigations distinguish between species that form various percentages of the total food eaten by deer in any one season and in various forest types. The bear-oak type, however, was not specifically studied in any of these investigations.

Scope of the Study

The present study was part of a general investigation to obtain information concerning seasonal food preferences of deer which could be used as a partial basis for evaluating the browse possibilities of forest types and for development of silvicultural cutting practices that will be of definite value to deer.



Effects of browse showing cropped terminal twigs.

Distinct variations in food preferences were observed in different forest types and with different densities of deer population. The results presented in this paper apply specifically to the bear-oak type of the "Barrens," which cover about 20,000 acres of relatively infertile, sandy soil in the Nittany Valley, and which have a population of approximately one deer to 20 acres.

Characteristic and dominant woody plants in the area studied were bear oak, dwarf chinquapin oak, prairie willow, and pitch pine. The type has been created by excessive cutting and fire which have caused partial elimination of the more valuable hardwoods and white pine and their replacement by resistant species of lower value such as pitch pine and bear oak. Aspen has been spreading throughout the type and in the absence of fire has succeeded in overtopping the scrub oaks to form pure aspen stands in many places. Although plant successional relationships indicate that the present type will in time change to a mixed hardwood and pine forest, the sparsity of seed trees and destructive coaction of animals will make the change an extremely slow process. Also important in the vegetation of the area were the species found in numerous small sinkholes that were partially filled with water during wet seasons of the year. Common woody plants characteristic of this habitat were meadowsweet, chokeberries, dewberry, and buttonbush.

The permanent sample plot method was used in obtaining the data presented in this paper, the scope of which has been purposely limited to woody species common to the bear-oak type, as it seemed desirable to lay particular emphasis upon the critical winter season when woody species were not only heavily utilized as browse but were even the sole food of deer following heavy snows. Browsing of woody plants during

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[1] Paper No. 34 from the Pennsylvania Cooperative Wildlife Research Unit,—Fish and Wildlife Service (U. S. Department of The Interior.) The Pennsylvania State College, Pennsylvania Game Commission, and American Wildlife Institute, cooperating.

Authorized for publication on April 23, 1942, as Paper No. 1098 in the Journal series of the Pennsylvania Agricultural Experiment Station.

[2] Mr. Bramble and Mr. Goddard are in the Army, on leave from The Pennsylvania State College, State College, Pa., as associate professor of forestry and assistant professor of forestry, respectively.

Acknowledgment is given to Dr. J. L. Deen, Dean of the Division of Forestry and Range Conservation, Colorado State College, under whose leadership the project was initiated while he was on the staff of the Department of Forestry, The Pennsylvania State College.

Browsing of Woody Plants by White-Tailed Deer

By W. C. Bramble

and

M. K. Goddard

●

other seasons has been regarded as of importance chiefly because woody species which were browsed heavily in the summer and fall were apt to be in poor condition to furnish winter food.

Seasonal Preferences

Three and a half years' browsing data are available on common species which had been selected on the basis of known abundance early in the study. Other species which came under observation later were sparsely present or were localized in their occurrence within the type.

The data are arranged by seasons which varied somewhat in length from year to year, and such grouping is very useful in giving a seasonal picture of deer browsing and is sufficiently accurate when compensations are made for unusual increase or decrease in length of seasons during the period of study. In the area studied, spring has been taken to include the months of April and May; summer the months of June, July, August, and September; fall the months of October and November; and winter the months of December, January, February, and March. The spring and fall were periods of transition when the condition of the vegetation and the type of food available were changing markedly and with relative rapidity.

The need for sample plot data extending over a period of more than one year to get a true picture of seasonal browsing on any one species was illustrated in this study. Although most of the data for these years exhibited a decided uniformity, some species were not browsed every year and could have been erroneously listed as not browsed in certain seasons if but one year's data had been available. The deer population and usage of the area did not change markedly between the years in which variations occurred.

Several distinct trends in seasonal browsing were shown. Certain species such as gray dogwood, American hazelnut, dewberry, meadow-sweet, teaberry, and the blueberries were browsed lightly and uniformly throughout the year, while others such as Jersey-tea, Allegheny plum, prairie willow, and trembling aspen were browsed with varying intensity, i. e., heavily in certain seasons, lightly or moderately in other seasons. Three types of seasonal utilization are illustrated. Heavy summer browsing was typical of Jersey-tea and Appalachian cherry, which were lightly browsed in other months. Sweetfern and prairie willow were browsed heavily in the winter and spring, with much lighter utilization in other seasons. Gray dogwood and American hazelnut were typical of species that were browsed uniformly throughout the year without heavy utilization in any one season.

Although the majority were browsed lightly or moderately during the spring, summer, and fall when other foods were available, several species were utilized heavily in the summer and lightly or not at all in the winter. Also in the winter season when nearly all the common woody species were browsed to some degree, one group could be recognized that was more heavily utilized than the others. Such seasonal differences in utilization appeared to be typical of deer browsing, as the same trends were noted during the three consecutive years of observation. The outstanding seasonal browse preferences of white-tailed deer in the bear oak type based on percentage of utilization were as follows. Of all the woody species browsed, prairie willow and sweetfern were utilized most heavily and consistently throughout the year, although sweetfern was not browsed during the summer months. Jersey-tea, which was the most heavily utilized species during the summer, was browsed lightly during the winter and was very sparse owing to die-back during that season.

Summary

Although white-tailed deer browsed all of the common woody plants in the bear oak forest type at one time or another during the year, they exhibited definite seasonal preferences that were correlated not only with differences in availability of the various species but also with seasonal differences in feeding habits and preferences. Of all the species browsed, sweetfern and prairie willow were utilized most heavily in the critical seasons of winter and spring; Jersey-tea, hawthorn, and Allegheny plum most heavily in the summer; and Jersey-tea and sweetfern most heavily in the fall. Other species which were utilized heavily in the winter when other foods were scarce or unavailable were trembling aspen, dwarf gray willow, chokeberry, and bear oak. Service berry and dwarf chinquapin oak were moderately utilized during the winter. In a program of game management on areas occupied by the bear oak type, management practices should encourage those woody species which are consistently used as winter food by deer.

Literature Cited

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2. Clepper, H. E. 1931. The deer problem in the forests of Pennsylvania. Penn. Dept. Forests and Waters Bul. 50.

(Continued on page 29)



Deer at salt lick.

. . . BACK TRACKING . . . *The Editor*

From time to time we hope to run interesting little notes which appeared in early issues of Game News, particularly for the benefit of many new readers.

H. P. Hendricks, of Selinsgrove, found a dead otter entangled in some chicken wire near the shore of the Susquehanna River.

At the nesting sites of several duck hawks were found numerous bands from the legs of carrier pigeons. These birds were struck down by the hawks while in racing competition and their owners were later traced by the numbers on the band.

A deputy by the name of I. H. Hive from Bodine, said that he observed pheasants, sparrows and juncos feeding together, but that the pheasants would not permit the sparrows to feed in the group and chased them away every time.

A farmer was an eye-witness to a furious battle between a pheasant and a marsh hawk. The hawk barely escaped being killed by the ferocious attack of the pheasant.

A man shot a crow that seemed to be laboring in flight and found that it had a young rabbit in its mouth.

The Bible prohibits the bearing of false witnesses against thy neighbor but says nothing concerning exaggeration of your own prowess—therefore the fisherman's lie is looked upon with forebearance.

Blacksnakes have been known to eat all kinds of domestic, game, and song birds' eggs but the one that suspended itself from a beam over a hen nest and swallowed a china egg was killed by the farmer to keep it from getting indigestion.

A game farmer once observed a blacksnake wrapped around a rail fence trying to crush some wild turkey eggs it had just swallowed.

A huge bolt of lightning instantly killed three buck deer—all with antlers in the velvet—which were pasturing in an open clover field.

Four catbirds were observed by a Deputy Game Protector near Germania, Pa., picking at a freshly killed young rabbit. The animal was still warm.

A woman recently sought a **divorce on** the grounds that her husband bought a hunting license instead of baby shoes.

A resident of one of Pennsylvania's northern central counties who lives adjacent to a woodlot, said he heard a flock of starlings making an awful fuss one day. He investigated and found they were trying to chase a grouse off her nest.

The City of Happiness is in the State of Mind.

Several persons were eye-witnesses to a wildcat which was shot out of a tree. In falling, it jumped onto the shoulders of one of the party who finally chocked it to death.

A buck attacked a hunter who, removing his coat, sidestepped the charging animal a-la-toreador fashion and then threw the garment over the creature's head. The buck dashed off. On its heels went the hunter in pursuit of his coat, but he was soon outdistanced and lost the race and the garment.

Stray house cats weighing from 15 to 20 pounds are frequently killed.

Deputy Stanley Rhodes of Duncansville, while patrolling recently heard a downy woodpecker making quite a commotion in a bunch of dead chestnut timber. Thinking that possibly a hawk or owl was disturbing its nest he investigated. Upon locating the nesting cavity he saw a blacksnake about halfway in the hole. He was preparing to shoot the snake when it began to swish about. Later it fell to the ground. It was covered with honeybees which stung it so many times that it died. In it was found a song sparrow and four eggs belonging to the woodpecker.

A black cat acted as a magnet to six deer standing in a field near a house. The cat first frightened the deer which quickly recuperated and through sheer curiosity followed the little black animal almost to the steps of the house.



"Paw! I reckon youse need glasses—thet weren't a Groun' Hawg you shot at a few minutes ago."

"Be careful who you pick on" is the moral to the following story. A starling tried to pick a fight with a cardinal but was soon put to route.

A group of hunters tried to steal a boy's deer but other hunters intervened and heard both sides of the story. The boy won because he had the foresight to stick his hunting license in the deer's mouth.

A hunter was stopped by a Game Protector who had observed a small heifer on the running board. "Why the calf," said the Protector. "I paid the farmer $30.00 for it," said the hunter. "It was getting dark, I saw several deer in the clearing and aimed at the biggest buck which proved to be a thoroughbred Herford bull valued at $400.00. Fortunately I only hit the heifer."

Cats chasing mice are common, but when Game Protector Meiss chased stray cats the other day he was lauded by local sportsmen.

A robin persisted in flying against the windowpane of a house. He possibly saw himself in the glass, figured his reflection was a competitor, and went after it hammer and tongs.

A father and two brothers went hunting. Their dog was running a rabbit when the youngest brother scared up another bunny which ran down the hill and bumped into the dog. The dog let out a howl and the rabbit fell but got up again and ran between the canine's leg and escaped.

For five years the same robin nested near the same house, being readily identified by a white feather in its tail, noticeably longer than the other tail feathers.

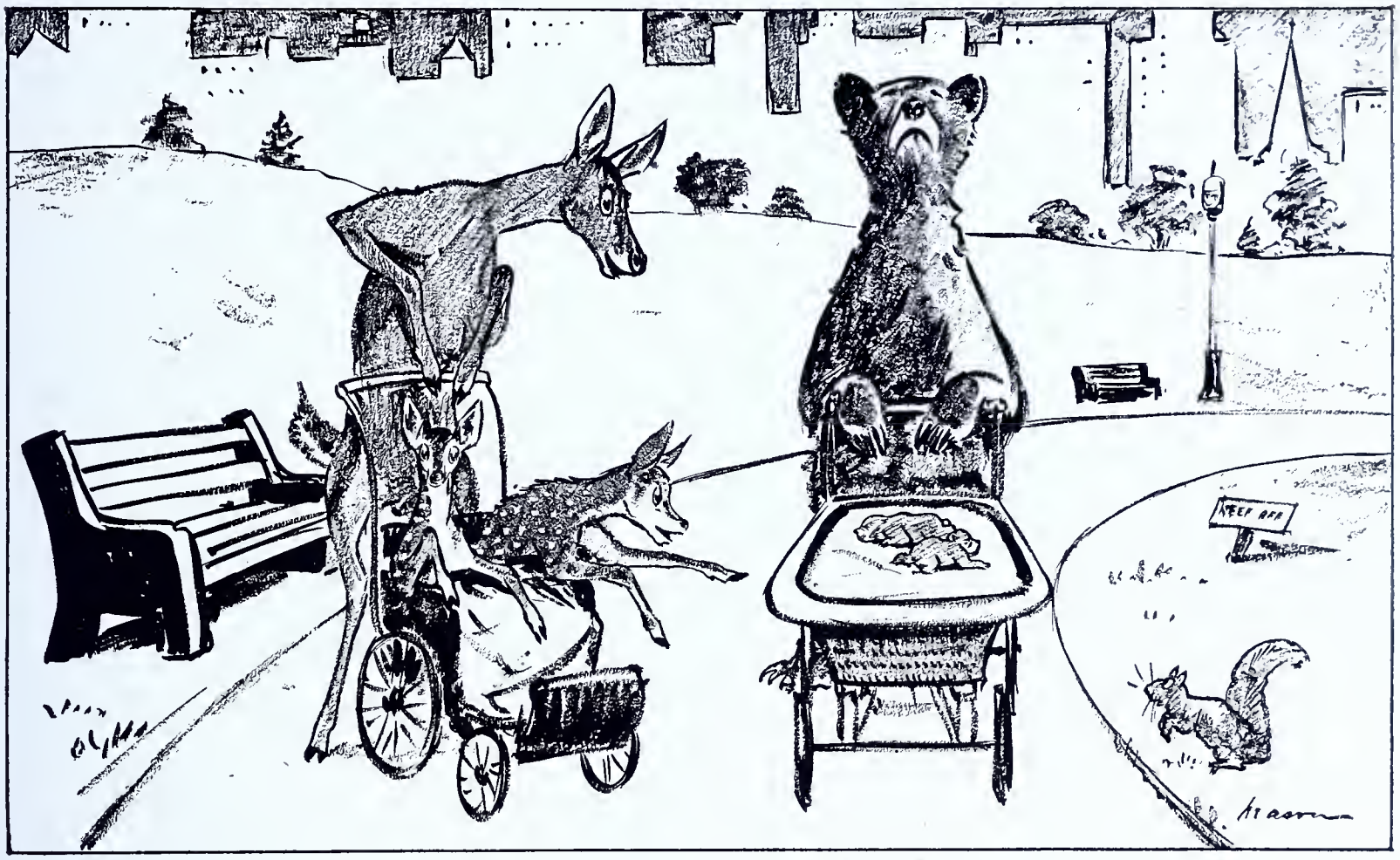
A practical and effective way of clarifying muddy or apparently undrinkable water if you pour two tablespoonsful of condensed milk in a five gallon can of water. This being heavier than the water will sink to the bottom drawing down also all sediment contained in the water. In a few minutes the water may be poured off clear and fit for drinking and cooking.

Hunters who get lost and have no compass can use their watch for this purpose very easily. Watch where the sun is shining, turn the face of the watch to the sun in such a position that the hour hand will point to the sun. Half way between the hour hand and 12 o'clock will then be the south point.

A former Deputy Protector recently killed two moles, both of which were full of Japanese beetles.

An eye-witness saw a cat catch and kill a weasel.

Animal Babies



Reprinted courtesy Natural History Magazine.

By John Eric Hill
Drawing by
G Frederick Mason

EVEN in the extreme climates of northern United States and Canada, many mammals have their young before the weather becomes warm, but in general, spring is the season of birth.

Mammal babies are born at various stages of development and take different lengths of time to grow up. The newborn opossum is a tiny, grublike creature, pink and hairless. It weighs only a hundredth part of an ounce and looks hardly more developed than an embryo of other mammals. More young are born than the mother opossum can accommodate, but it is common to find ten or twelve babies in her pouch. Here they stay for several months, growing to look like their parents. When about three months old and the size of rats, young opossums learn to take care of themselves.

A baby bear, when first born, is about the size of a gray squirrel. It weighs only about half a pound, although its mother may weigh 200 pounds. Twins are the rule among bears, although three or four cubs are not unknown. Baby bears are born in the winter, in January or February, while the mother bear is in winter retirement. They are blind, naked, and helpless. All through the summer and fall the cubs stay with their mother, who takes good care of them, driving away possible enemies and cuffing the youngsters when they do not behave. When winter comes again mother and cubs den up together. Young bears set out to live their own lives when about a year and a half old.





Meadow mice are famous for the number of descendants a pair may have in a year. Six or eight young are born at a time and under good conditions a new litter may be expected every three weeks. Females have their first batch of babies when about six weeks old, which is a record. The babies are hardly more developed than bear cubs at birth, but they are relatively large, weighing about one-fifteenth of an ounce—the mother mouse weighs an ounce or a little more. The young mice are weaned and begin to make their own living before the next litter arrives.

Young deer or fawns, in contrast to the helpless babies of most mammals, are covered with hair and have their eyes open at birth. While they can walk and move around, fawns are weak and spend their first few weeks hiding in thickets. Twins are usual in our white-tailed deer. Their mother leaves them in separate places, returning to nurse them several times a day. Fawns are weaned when about four months old, the age when they lose their spots, but they continue to stay with the mother deer through the first winter, often longer.

☆ ☆ WITH THOSE IN THE SERVICE ☆ ☆

"Your most rapid response to my postcard message was as delightful as unexpected and, in view of my negligence in correspondence, perhaps undeserved.

"To bring you up to date in my military career won't take very long. Graduated from Chemical Warfare Service Officers Candidate School at Edgewood Arsenal, Maryland, on March 4. After a 10-day leave (cut short because of orders) reported for temporary duty at Bushnell, Florida. This research work was very distasteful to me as I've constantly asked for and was recommended for combat duty. Finally got it—with this outfit which right now is hotter than an outlaw's pistol.

"To answer your questions regarding the military abbreviations in my address Major Conklin, I'll write it in full, 2nd Lt. R. D. McDowell, Chemical Warfare Service,, o-1535676, 89th Chemical Battalion (Motorized), Camp Carson, Colorado.

"Despite the fact that my particular branch of the army is a service one we are combat troops.

"Our job is to support an entire division with our battalion (about 500 men) of 4.2" mortars. Similar outfits played vital roles in Africa, Sicily and Italy, fighting for as long as 8 months without relief. We're motorized (jeeps) and with our mobility and the lightness of our weapons, we serve as artillery on beach landings. So you can see it's a good outfit—and mark my word you'll hear about us wherever we go.

"Have been here about two weeks working like blazes—day and night. Weather is ideal—warm in the daytime but refreshingly cool at night.

"Until this is over and I exchange my carbine for my old shotgun and a 4.2" mortar for a deer rifle, I remain Your friend, Bob."

Well the Navy is a little bit different than the Game Commission, but going through the Commission's training school helped me out a lot.

I have ten more weeks of gunner's mate school then maybe I will get out on the pond. I am looking forward to that. You sure get to know how to handle a gun and repair it here. Take it apart and put it together in the dark.



"Now Junior, quit that 'Tail Gunner' stuff!"

I met game protector Duane Lettie a few weeks ago but he moved out and I don't know where he went to. I would give five years of my life to have one good day of fly fishing in good old Sullivan County right now. My wife sent me the GAME NEWS and the boys here have it worn out looking at it.

They don't give you much time to write so will say so long. If you have an extra copy of the GAME NEWS please send it to me. —Chester S. Siegel, S2/C

A letter from Bill Drake says that he qualified as a sharpshooter at Camp Crowder, Missouri, with the Springfield, shooting 170 out of 195 on a windy day. Two more points and he would have qualified as expert.

A letter from D. L. Batchelor also mentions his experiences on the range and goes on to say "Having spent 2½ days at the range, we moved on up for bivouac where we simulated an actual theatre of war. This lasted three days and we were fed on 'C' rations, which isn't a bad diet if your damned near starved. Consists of three cans of beans and three cans of biscuits a day, which also contain a synthetic flavoring for a beverage (either lemon, chocolate or coffee), three dog biscuits and two pieces of hard candy. Also pitch shelter-halves in teams and sleep on old mother earth—and she can be plenty hard. Did our field problems in one of Mississippi's fine swamps and gained some first hand knowledge of water moccasins and cotton mouths, which are as common as mosquitos in the swamps. Some of the boys wakened at night with the lovely little creatures sharing their blankets. All in all it was tough but interesting. If you could have seen this bunch when they returned to Keesler Field you would have sworn they had just returned from an engagement in some South Pacific Isle. Six day beards, dirtier than hogs as we had one canteen of water a day which wasn't sufficient even for drinking. Didn't have one article of clothing off for six days. Even the hogs, which were left run wild near the bivouac area, hesitated to come in and eat with us during chow.

"This is just island X, the same as all others, with sun burnt natives, mosquitoes, insects, cocoanuts and what haven't you—the newest thing of interest being very large bats. One that met its fate the other day had a wing spread of almost 36 inches. It does not get hot here, neither does it rain—just a mere drizzle.

"Have been receiving the GAME NEWS and enjoy it very much. It makes its rounds to several Pa. sportsmen who are here with me. Best regards to one and all, looking forward to joining you all some day.—D. J. Blessing, former Deputy Game Protector, Cumberland County.

"Spring weather still continues over here and in spite of the coolness the gardens and crops are doing well. I had done quite a bit of traveling the past few weeks and had the opportunity to see a lot of country. It's quite nice in its Spring dress. Some of the flowers are different. Have seen some of the mountains. None of the country seems to have much cover for game. In fact I haven't observed any game killed on roads. Seems strange to not see any while driving so much. I'm feeling fine, getting plenty to eat, and learning a few things that will come in handy in everyday life. Say hello to all." Note new A.P.O:—Louis D. Mostoller.

"Just a few lines to let you know that I have finally landed in England after an uneventful trip across the Atlantic. Became a bit seasick on the way over, but enjoyed the trip a lot.

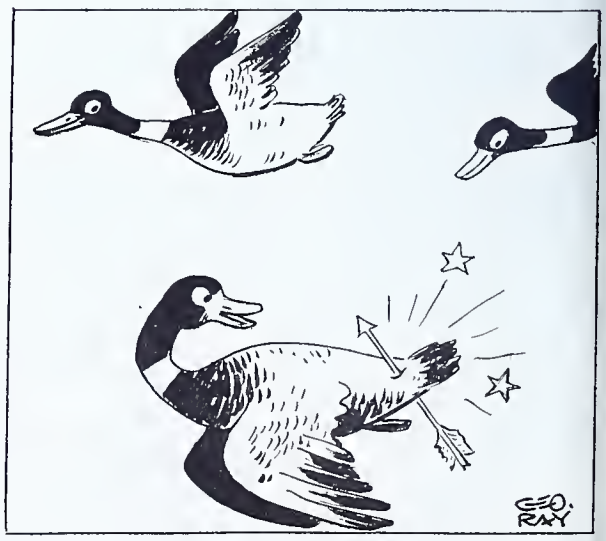
"We have been treated fine by the people here and I must say that this place certainly is beautiful. Its hard to believe that there is a war on and don't let any one tell you that these English people can't take it, for they have been taking it on the chin for a long time and they are still in there swinging.

"Sure hope that the GAME NEWS soon catches up with me for it has always been a most welcome piece of mail. Give my regards to them in the office."—1/Sgt. J. S. Kepner.

"I was very pleased the other day to receive the large bundle of GAME NEWS which I had not seen previously. It sure does a fellow good to read about what is going on in Pennsylvania and I especially enjoy the 'Notes from the Field,' written by many of the men whom I know personally. The stories on the different game and furbearing animals written by the boys at the Training School are also very good.

"The number of missions that we have to fly to complete a tour has been raised and I just have about two-thirds of mine completed. I am a lead Navigator now, so I don't get my missions in very fast, we just fly when we lead the group. Therefore, I intend to be sweatin' out my tour for sometime to come. Give my regards to all the gang."—Lt. Harold C. Kornman.

(Continued on page 23)



"The shortage of guns is very annoying, isn't it?"

Highlights on the Ninth Wildlife Conference

THE Ninth North American Wildlife Conference was held this year in Chicago, April 24, 25, and 26 and in spite of the fact that many wildlifers were too busy with "Japanazi" vermin control projects to attend this session, there were 502 registered delegates in attendance.

As would be expected, many of the papers presented were colored by war influences and were in reality post-war plans, but all had a definite bearing on the problems facing the conservation future of America. The general sessions were divided into four main divisions:

1. Forestry and Soils
2. Plans and Programs
3. Coordinated Land Management
4. Engineering, Health, and Reclamation.

During the technical sessions the latest developments in wildlife research were presented. These discussions covered all fields; big game management, fish management, commercial fisheries, waterfowl, upland game management, and the functions of wildlife and conservation education. Under these various sub-divisions many problems facing the wildlife investigators were brought out and some solutions offered.



Plantings along field borders help prevent erosion and provide food and homes for wildlife.

Any attempt to choose highlights from so many splendid addresses presented by well-qualified men is a difficult task. Each of the 47 papers read represented fine research and gave to those hearing them many interesting and worthwhile facts and figures. However, some of the remarks by various men warrant special attention by all persons interested in the future of conservation.

To my way of thinking, one of the most outstanding discussions of the conference was presented by Dr. William A. Albrecht of the University of Missouri on soil fertility and how it affects not only wildlife, but our national well-being as well. He pointed out that quantity production from the land is important only so long as the quality remains at a high level. In other words, producing two blades of grass where one grew before is a fine accomplishment only if the nutritional value of the grass is doubled also. However, if the combined nutrient value of the two blades is not as great as that contained formerly in the one blade, then increased production is of little actual value. He explained clearly that if the proper elements are not in the soil then everything stemming from that soil, whether directly as plants, or indirectly as animals and human beings, will be deficient in the necessary elements. Our hope then lies in improving the soil by putting back into it the elements which improper farming methods, floods, erosion, and leaching have taken from it. With increased soil fertility will come improved animal and human development, and only in that way.

Lyle G. Watts, Chief, U. S. Forest Service, had some enlightening comments to make on the federal functions of wildlife and forest management especially as applied to the 178,000,000 acres of national forest. An extensive post-war program of forest rehabilitation has been planned, including such features as extended fire protection, reforestation, especially of the 77,000,000 fire-scarred areas, control of insects and tree diseases, forest range control, and greater development of the recreational facilities. In this program the needs of wildlife are being carefully considered and planned for by "wildlifers" skilled in analyzing and coping with existing problems. In closing, he threw out several additional thoughts, such as forest productivity must be controlled as an economic feature; good forest practices must be made attractive to private industry; and public ownership should be extended to lands which are not attractive to private industry for rehabilitation purposes.

Some additions to this general trend of thought were made by G. Harris Collingwood who represented industry's side of the forestry problem as the official representative of the National Association of Lumbermen. He stressed the havoc wrought to both forests and wildlife by their ruthless enemy, fire, which last year cost us $41,000,000. He stated that at present one of the greatest goals for both forestry and wildlife management is fire protection for forested areas.

The representatives of the other North American countries, Senor Juan Zinzer of Mexico and Messrs J. A. Rodd and Harrison F. Harris of Canada brought brief, but encouraging messages from their respective countries concerning the progress of Conservation and the plans for the future extension of this work.

The Secretary of Agriculture, Hon. Claude Wickard, gave one of the most comprehensive addresses of the Conference, touching almost every angle of conservation. He urged that plans be completed now for conservation work so that if unemployment strikes these plans can be activated immediately to relieve the situation. He stressed soil conservation because soil erosion has already taken one-third of our top soil, and poverty inevitably follows erosion. The pressure of war has fallen hardest, perhaps, on our forests. At the present time we are using our forests almost twice as fast as normal growth can replace them, and there has been too much of the disastrous clean-sweep logging. So, forest rehabilitation must become a reality in the near future. Recreational facilities must be increased, and if carefully planned this will have a beneficial effect on wildlife. Control of water must be extended to reduce floods, to aid navigation, to further agriculture, and to prevent erosion.

Post-war planning for the national future, he stated, is a vital necessity if our country is to retain its proud place in the world.

Dr. Ira N. Gabrielson, Director, U. S. Fish and Wildlife Service, outlined the plans made to meet some of the demands made in Secretary Wickard's address. He gave us a look into the future of conservation of our wildlife species, and emphasized the need for developing and putting into effect an educational program which will not only enlist the support of the present, but will carry on from generation to generation, for only in an educated people rests the knowledge needed for the conservation of our national resources.

A new idea was brought to the fore by Mr. Shirley W. Allen, of the University of Michigan—that was that we need as much research in finding out human reactions to conservation as we do in solving wildlife problems. Upon the general public depends the conservative use or the destructive waste of our resources. He said that if we maintain water levels and fire protection, we'll get along with our natural resources, but the big job lies in getting along with the people,

(Continued on page 31)

★ ★ ★ CURRENT TOPICS ★ ★ ★

Dr. Carl B. Rosenkrans Honored



At the speakers' table at the Testimonial Dinner given to Dr. Rosenkrans on May 11 are left to right: Mr. W. Gard Conklin, Chief, Division of Lands, Pennsylvania Game Commission; Senator M. F. Crowe, Speaker; Judge Samuel E. Shull, Toastmaster; George Costanbader, President of the Monroe County Federation of Sportsmen's Clubs; Commissioner Carl B. Rosenkrans; Mr. John L. Neiger, Member of the Fish Commission; Mr. Seth Gordon, Executive Director, Pennsylvania Game Commission; Mr. Gerald Edmunds, Delegate to the Pennsylvania Federation of Sportsmen's Clubs from Carbon County; and the Hon. J. Q. Creveling, former Member of the Pennsylvania Game Commission.



Field Officers of the Game Commission from Division "B" are shown above along with Patrick J. O'Connor, (left) delegate to the Pennsylvania Federation of Sportsmen's Clubs from Luzerne County and law partner of Mr. Creveling. Left to right, Mr. O'Connor, Game Protectors J. E. Jenkins and John Spencer, John J. Slautterback, Game Land Technician, Game Protector William C. Ackey, Field Division Supervisor Jay C. Gilford, and Game Protectors Peter A. Zikosky and Paul L. Failor.

ON MAY 11 more than 200 sportsmen from Northeastern Pennsylvania—men from all walks of life—met in the Penn-Stroud Ballroom, Stroudsburg, to pay tribute to Dr. Carl B. Rosenkrans, recently appointed a member of the Pennsylvania Game Commission. A true, wholesome, sportsmanlike attitude permeated the whole affair from the time it was opened by President Judge Samuel E. Shull, who most capably discharged the duties of toastmaster to the final speaker, Senator Montgomery F. Crowe.

Mr. George Costenbader, chairman of the Monroe County Federation of Sportsmen's Clubs, the agency sponsoring the affair, welcomed the sportsmen. Speaking in behalf of Dr. Rosenkrans, Judge Shull said nowhere in that section of the state is there a more enthusiastic and well informed sportsman. He predicted that his services will be a profit to the Commission and to his fellow sportsmen, because he represents the type of man who can serve the whole state in a fair and square manner, as that is the way he has played the game all his life.

Prominent persons attending the testimonial included Representative Chester A. Coleman; County Superintendent of Schools, Professor J. H. Kunkle; Seth Gordon, Executive Director of the Game Commission and W. Gard. Conklin, Chief, Division of Lands, Pennsylvania Game Commission; Mr. John L. Neiger, member of the Fish Commission, Scranton; Mr. John Q. Creveling, former member and legal adviser of the Game Commission; State Senator M. F. Crowe, Thos. D. Frye, Executive Director, Pa. Liquor Control Board, and Dr. C. A. Mortimer, secretary-treasurer of the Federation of Sportsmen's Clubs. Others presented by Judge Shull were game and fish wardens from northeastern counties; Gerald Edmunds, federation delegate from Carbon County; O. E. Hippensteel, federation delegate from Wayne County; Patrick J. O'Conner, federation delegate from Luzerne County; Field Division Supervisor J. C. Gilford; John J. Slautterback, Game Land Technician, and others.

GRAND AMERICAN TO BE HELD AUGUST 23, 24, 25

According to announcement in *Sportsmen's Review,* official publication of the Amateur Trapshooting Association, it has been decided to hold the Grand American handicap at Vandalia, Ohio, again this year, on August 23, 24 and 25 inclusive.

The New York State Conservation Department recently announced a complete revision of policy governing administration of the State's 16 wildlife refuges. Under the new plan, a series of large non-hunting areas will be made public hunting grounds, surrounding small scattered refuge areas left to insure maintenance of seed stock of various kinds of game.

COOPERATIVE CONFERENCE

At the invitation of Hon. Ross L. Leffler, President, Dr. Ira N. Gabrielson, Director of the U. S. Fish and Wildlife Service, Mr. Charles E. Jackson, Assistant Director of the U. S. Fish and Wildlife Service in charge of fisheries matters, Mr. Charles A. French, Commissioner of Fisheries of Pennsylvania, and leading Game and Fish officials from neighboring states, met with Members of the Pennsylvania Game Commission at Commissioner Leffler's cabin at New Florence, Westmoreland County, on May 20 and 21, for the purpose of discussing mutual wildlife conservation problems, including migratory bird regulations, Federal aid projects, game land management, research, and law enforcing problems.

Within the last several years a great many such problems have developed, and joint conferences such as these are believed to be one of the best methods of intelligently and expeditiously arriving at remedial measures for them. The meeting was designed, not to formulate any definite programs, but to intimately discuss the more complex questions besetting the various Federal and State agencies concerned.

State representatives included Mr. John A. White, Commissioner of the Conservation Department of New York, a former President of that state's Conservation Council, an organization comparable to our State Federation; Mr. George C. Warren, Jr., President of the New Jersey Board of Fish and Game Commissioners, who has been a member of the New Jersey Commission for something over 20 years, and has been its present President most of that time; Mr. E. Lee LeCompte, State Game Warden of Maryland, who has held that position since about 1916, Mr. LeCompte having the longest continuous service as a game department administrative head in the U. S.; and Mr. Don Waters, Commissioner of Conservation of Ohio.

Members of the Game Commission attending the conference included Messrs. Ross L. Leffler, President, Robert Lamberton, Vice-President, G. I. Phillips, Harold Moltz, Dr. H. E. Kilgus, John C. Herman and Dr. Carl B. Rosenkrans. Seth Gordon, Executive Director and R. A. McCachran, Assistant Director, also were present.

Unsafe Firearms

In a recent announcement W. C. Shaffer, Chief, Division of Law Enforcement, of the Pennsylvania Game Commission called attention to the fact that a number of old shotguns and rifles, which are unsafe and unfit for shooting purposes, are being offered for sale privately by individuals. Many of the shotguns are made with Damascus barrels which were not manufactured for present day high speed ammunition. The same is similarly true of a number of rifles with interchangeable ammunition.

Mr. Shaffer says these firearms are likely to explode and cause serious injury to the user or nearby persons and suggests that prospective purchasers be extremely careful before purchasing this class of firearms.

COMMISSION ACTS ON SPECIAL FOX HUNTING SEASONS

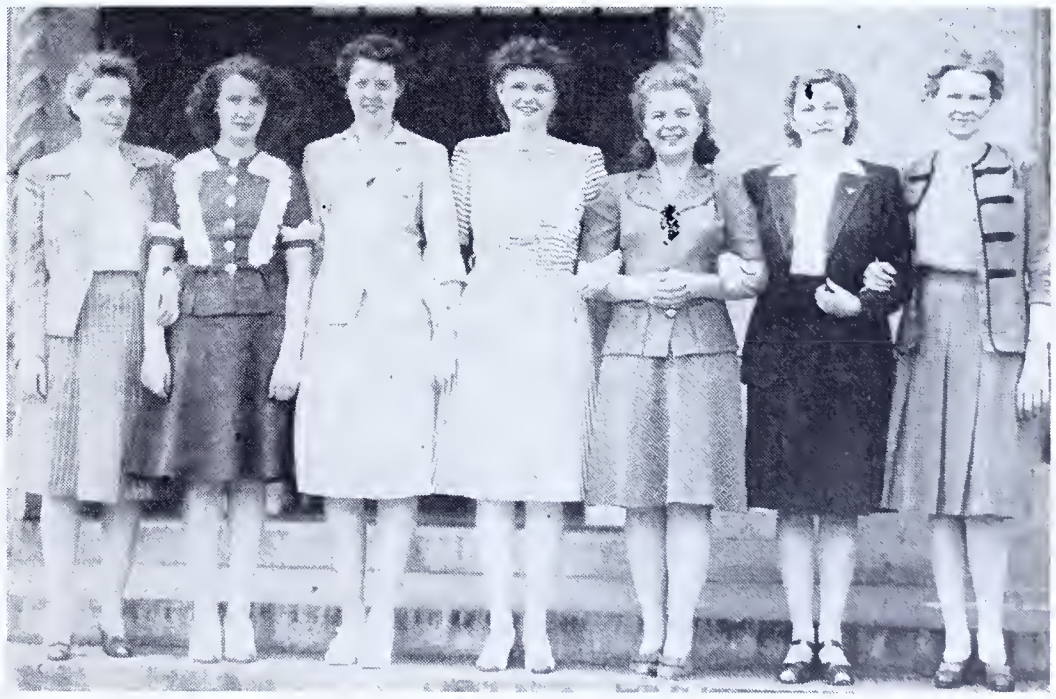
The special notice on Page 27 of the June Game News, which inferred that the Commission had established a uniform period for fox hunting, was misleading. That action merely prepared the way for establishing a uniform period, as the resolution below indicates. Since June 1 the use of fox hounds in all counties has been prohibited by the law which applies to other classes of dogs during the period from April 1 to August 20, when the training season again opens.

"WHEREAS, The special fox hunting seasons now in effect for fifteen (15) counties of the Commonwealth, established under the provisions of Section 719, of the Act of June 3, 1937, P. L. 1225, as amended, which permit the hunting of foxes throughout the year except for a sixty-day period in each of said counties, are confusing because the dates vary greatly;

"THEREFORE, BE IT RESOLVED, That in the hope of bringing about a more uniformly satisfactory period for fox hunting, the Pennsylvania Game Commission upon motion made, seconded and adopted this 6th day of May, 1944, hereby rescinds its several actions as below listed, effective as of June 1, 1944, and hereby automatically cancels any special fox hunting periods allowable by previous actions which occur after that date, said counties, closed periods, etc., being as follows:

County	*Closed Period*	*Date Commission Took Action*
Beaver	June 1 to July 30 incl.	May 31, 1939
Butler	May 2 to June 30 incl.	March 9, 1944
Fayette	June 21 to August 19 incl.	January 19, 1938
Greene	April 10 to May 8 incl. and July 1 to July 31 incl.	January 19, 1938
Lackawanna	April 2 to May 31 incl.	January 19, 1938
Lancaster	May 8 to July 6 incl.	July 13, 1938
Lebanon	May 2 to June 30 incl.	March 9, 1944
McKean	June 1 to July 30 incl.	April 10, 1941
Mifflin	June 1 to July 30 incl.	May 31, 1939
Perry	June 21 to August 19 incl.	April 6, 1938
Susquehanna	April 1 to May 30 incl.	April 6, 1938
Venango	May 2 to June 30 incl.	March 9, 1944
Washington	April 10 to May 8 incl. and July 1 to July 31 incl.	January 19, 1938
Westmoreland	June 1 to July 30 incl.	May 31, 1939
York	May 8 to July 6 incl.	January 19, 1938

"BE IT FURTHER RESOLVED, That the Executive Director of the Commission is hereby authorized and instructed to certify this action as and for the Act of the Pennsylvania Game Commission, and to publish, in summarized form, a proper notice thereof in accordance with the provisions of Section 505 of Article V of the Act aforesaid."



Recently the secretaries to the various Field Division Supervisors visited the Harrisburg office of the Game Commission to become better acquainted with methods used in handling correspondence, files, etc. They are left to right: Dorothy Myers, Division "A"; Jean Roberts, Division "B"; Mary Ellen Crumbling, Division "C"; Alice Weaver, Division "D"; Sara Jones, Division "E"; Betty E. Lilly, Division "F," and Mrs. Imogene Scull, Division "G."



Mr. C. C. Freeburn

KNOW THEM BETTER

The matter of quickly jumping into the breach and filling someone elses shoes in an emergency is not always easy, but Mr. C. C. Freeburn, Acting Chief of the Division of Game Land Management, was able to do just that after the Chief of the Division entered the armed services in August, 1942. Since then he has been doing a splendid job in helping further the land management program.

Mr. Freeburn obtained his grammar and high school education in the city of Harrisburg, and subsequently graduated from Pennsylvania State College in 1926 with the degree of Bachelor of Science in forestry. Thereafter he worked with the Reading Railroad in the capacity of a field and office engineer. He affiliated with the Game Commission in June 1932 as a draftsman in the Bureau of Refuges and Lands, but left the service three years later to enlarge the scope of his field and administrative experience with the Federal Government.

During this time he directed the purchase of approximately 10,000 acres of submarginal land near Thurmont, Maryland, which is now being supervised by the National Park Service. He also was in charge of the purchase and development of similar areas in New York and Rhode Island, and spent much time at the regional office in New Haven, Connecticut administering the purchase and development programs for the northeastern section of the country, which included the New England States, New York, Pennsylvania, Delaware, New Jersey and Maryland. However, like the proverbial chicken that comes home to roost, he re-entered the Commission's service in June 1937 as Principal Game Land Technician in the Division of Game Land Management.

Fox Increase Extends to Canada

Ellwood Epps of Clinton, Ontario, reports that this year's fox increase is not confined to the United States. Says he: "The fox hunting around here has been the very best. Six chaps got over 80 this winter. Foxes are so thick that the Government has lifted all restriction as to their taking.

FEDERAL AID

We are just in receipt of a very interesting report of the FEDERAL AID IN WILDLIFE RESTORATION PROGRAM, as compiled by The Sportsmen's Service Bureau of The Sporting Arms and Ammunition Manufacturers' Institute in cooperation with The Fish and Wildlife Service. Although it is too voluminous to reprint there are some interesting statistics which are hereinafter given for your information.

For example, since the first appropriations were made for this purpose in 1938, the sum of $9,190,000 has been apportioned to the several states and territories.

As of June 30, 1943, obligations for approved projects under this program amounted to $8,445,426.47, subdivided as follows: Research $2,837,458.52; Land Acquisition, $2,648,440.53; Development, $2,644,076.80; Combination Research and Development, $12,637.62; and Co-ordination, $302,813.

Pennsylvania's share of Federal Aid Funds received on projects completed since appropriations were first made in 1939, totaled $233,424.06 as of May 31, 1944, subdivided as follows: Lands, $198,706.59; Research, $22,297.48; and Land Management, $12,419.99.

Federal obligations for approved projects outstanding as of May 31 include $231,129.21 for lands and $4,193.43 for Research, or a total of $235,322.64. The total Federal Aid apportionments made to Pennsylvania to date, which began July 1, 1938, amount to $468,747.33, the first project being approved on November 26 of that year. The research projects include the following: (a) Controlled Deer Breeding Experiment; (b) Loyalsock Wildlife Experiment Station; (c) General Ecological Investigation, and (d) Furbearing Animal Investigation. The land management project involves a composite research and management study of Forest-Wildlife Practices. All of these projects, except the ecological investigation, which is now confined to the bobwhite quail study, have been suspended for the duration due to the shortage of manpower.



"I thought I'd let you know, Bill, after discussing it with my wife, I'd decided not to go trapshooting with you boys this afternoon!"



Mr. Allan T. Studholme

KNOW THEM BETTER

The same responsibility of quickly taking over where the other fellow left off also fell to Mr. Allan T. Studholme, Acting Chief of the Division of Propagation and Research, who has been so ably handling those important phases of the Commission's program since the Chief of the Division entered the Navy back in August, 1942.

Mr. Studholme had his early schooling in Smethport, and his preparatory education at Saltsburg, Pennsylvania. He was actively engaged in all competitive sports during his school days and was on track, golf and hockey teams while at the University of Wisconsin. It is no wonder that game work was chosen as his career since he has been an ardent hunter and fisherman ever since he was old enough to carry a rod and whistle for his hound. Later he secured a BA degree at the University of Wisconsin and an MS in Zoology at Pennsylvania Cooperative Wildlife Research Unit. While with the Unit Mr. Studholme carried on important field research on ruffed grouse, woodcocks, and cottontails. He also was a visiting instructor at the Pennsylvania Game Commission Training School during the last refresher classes and toured 4-H camps one summer teaching field biology to the campers.

Mr. Studholme first entered the service of the Commission in February 1941 as a research assistant. Later he attended the department's training school where he graduated with highest honors, returning to the Division of Propagation and Research as its Acting Chief in August, 1942.

It has been found that a few vessels of water in a melon or tomato field, particularly in the section through which the pheasants make their approach, will stop the trouble. The pheasants pick at these crops to secure water and not because of their taste for the fruit or vegetable.

A farmer heard an unsual noise in his chicken house. Investigating he found a new born skunk. Not sure what to do with it at the moment he finally decided to put it with a mother rabbit that just had a litter. Mrs. Cottontail readily adopted the orphan which got along splendidly.



Mr. Blair J. Davis

RETIRES

Once more the ranks of old timers within the Commission has been depleted by one of its members—Game Protector Blair J. Davis of Media. Blair began his services with the Commission on February 15, 1930 as a trapping instructor. Four years later he was made a traveling game protector and after serving in that capacity for 3 years was elevated to the position of a district game protector. Although his tenure of service has not been as long as some other oldtimers it has been extremely diversified. For a number of years, in addition to his other work, he had charge of one of the department's large traveling exhibits of wild animals in which he took a very keen interest, and which affectionately earned for him from many of his brother officers and sportsmen friends the nick name of "Bring 'em back alive Davis." We certainly wish him the best of luck.

Found—Two leather jackets—one along the road at the entrance to Caledonia, the other about one-quarter mile from the park along the road to Pine Grove Furnace. Both jackets are in the possession of Dr. Paul Eves, 1100 N. Second Street, Harrisburg, Pa., who will be glad to turn them over to the rightful owners upon proper identification.

Iowa License Sales Decrease

Iowa hunting license sales for the license year April 1, 1943 to April 1, 1944 have dropped $39,000, or 33% from the preceding year. Fishing license sales have decreased $24,000, or 18%.

Combination hunting and fishing license sales have increased $6,000, or 37%, and trapping license sales have jumped more than 100%—from $10,300 to $21,300.

MILKWEED GOES TO WAR

The collection of milkweed floss is vital to the war effort. Boys and girls can now effectively share in this program.

For many years the United States has used kapok, a silky, seedpod fiber for filler in life jackets. Although the tree which produces kapok grows in many places in the tropics, only in Java were there any plantations where large quantities could be obtained. When Japan captured the East Indies, our supply was suddenly cut off, and we have been using up what kapok we had in the United States and what was in ships on the way.

Other things will do in some articles for which kapok was formerly used, but milkweed floss is the best material sufficiently waterproof and buoyant to use in life vests. This is why large quantities of it are so urgently needed. The floss in two bags of milkweed pods fills a life jacket. Your collection, though small, may help save a life.

We must have all the milkweed we can get, because our armed services will continue to need life jackets as never before. Remember there will be no more kapok for our fighting men until after they and their allies have wrested Java from the Japanese.

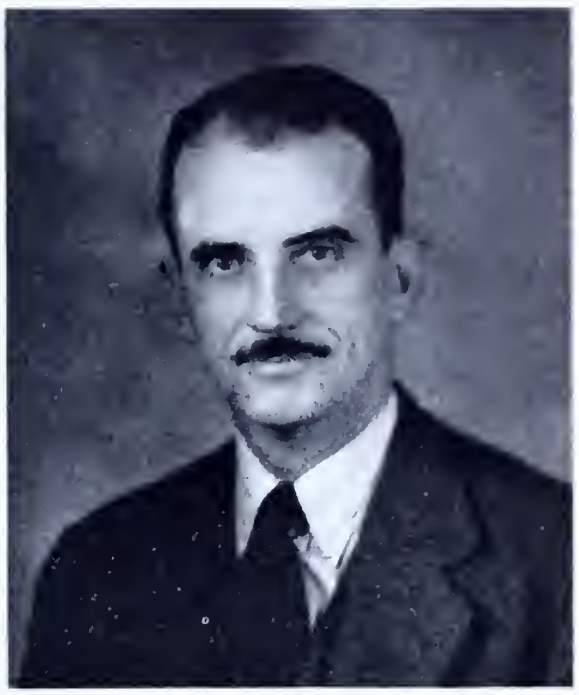
Ask your school authorities, county agricultural agent, War Board, or local Soil Conservation Service office for full information about the milkweed-collection program in your county.

School children of America! Help save your fathers', brothers', and neighbors' lives by collecting milkweed pods.

F. L. Ross, Secretary of the Corry Rod & Gun Club, just submitted 36 one-year subscriptions to be sent to members of that association who are in the Armed Forces. Congratulations Corry!



"He asked if we had any shells to fit his gun and when I said 'yes' he fainted!"



Mr. Wm. C. Ryder

LEAVES SERVICE

Just as we were going to press we learned of the voluntary resignation of Mr. William C. Ryder, Game Land Technician, Division "E," DuBois.

Mr. Ryder entered the service of the Commission February 1939 as an Advanced Game Land Technician and served in that capacity in Divisions "E" and "G" during his entire employment, except for the period May 1, 1941 to March 16, 1942, when he served as an instructor at the Commission's Training School. It is our understanding that he has secured another position in the wildlife field in Michigan, and we all join in wishing him the best of luck.

"Raccoons are getting tame in this section. There are two that come up on the back porch and eat out of my wife's hands. I have observed any number of deer in my travels and they are in good condition."—Land Management Protector, E. R. Richards, Frenchville.

New Forest Wildlife Chief

Lloyd W. Swift of California, member of the U. S. Forest Service since 1928, has been named Chief of the Forest Service Division of Wildlife Management in the U. S. Department of Agriculture, to succeed Dr. Homer L. Shantz who retired on April 15th after many years of service.

Mr. Swift served as assistant to Dr. Shantz from January, 1942 up to the time of the latter's retirement. For three years prior to that date he was in charge of wildlife management for the Forest Service Rocky Mountain Region. Previous assignments included range and management surveys, erosion control projects and wildlife investigations. He is a graduate of the University of California.



Photo courtesy of Philadelphia Bulletin.

Anne Faron of 854 East Madison Street, Philadelphia, an employe of the Women's Pennsylvania S. P. C. A., holds part of a litter of baby 'possums, from whose lifeless mother's pouch they were taken. An automobile killed the mother at K Street and Hunting Park Avenue recently.

IWLA CONFERENCE

Three outstanding resolutions approved b the Izaak Walton League of America at i 22d Annual Conference included:

a. That any municipality to be eligibl for financial aid and other assistance to pub lic institutions under State and federal post war public works programs shall have i operation facilities for adequate treatmer of all its sewage entering into any strea or other body of water, and that in th absence of adequate sewage treatment th State and Federal Government agencies sha require provision for sewage treatment b the municipality before any other publi works project assistance is granted, excep such public emergencies as may be certifie by state health authorities or the Surgeo General.

b. The League reaffirmed its policy, adopte March 28, 1942, with reference to high dam and extended it to include all large dam and large interwatershed diversions, wher ever these involve large impoundments o water; and that the terms "biologists an other scientific men" be interpreted to in clude ecologists, zoologists, botanists, for esters, wildlife technicians, soil chemist soil conservationists, range management ex perts, physicists and meteorologists. Th League on the other hand opposed th Greater Missouri River Development pla in its present form as promulgated by th Army Engineers and the Bureau of Reclama tion, and as presented in H. R. 3961 as con taining features subversive to sound an useful water conservation practices and bio logical uses of water at its source; and a disregarding valid public values.

c. Requested Congress to enact legislatio repealing the current 10 percent excise ta on fishing tackle when national necessity o such taxation ceases to exist, and impos instead a similar 10 percent excise tax pat terned after the Pittman-Robertson tax o sporting arms and ammunition, the revenu from which to be used for purposes simila to those outlined in the Clark Bill (S.1614) introduced in the first session of the 77th Congress, but providing that the full amoun of the tax collected in any year be auto matically available the next year for the purpose of the Act as in the case of the Duck Stamp Act.

NOTES FROM THE FIELD

"On May 2, while patrolling the woods in McKean County, Dog Law Investigator, Mr. Stanely Welfling of Germania, and I came across a group of five young red foxes playing like so many puppies. Every now and then they would stop and scratch themselves like a dog with fleas. Finally they discovered us and ran for their den, which we later examined, for remains of game. The ground was worn smooth where the little ones had been playing and there was plenty of deer hair and one deer leg. We also observed a woodchuck head and hide which from the appearance must have been a very large one.

"After looking the situation over for a spell we sat down on a rock for about twenty minutes. All at once we heard a noise in the leaves down below the den. We looked and saw the old fox coming up through the woods. She came within about fifty feet of us, jumped upon a flat rock and stood motionless for about ten seconds. We could see that she had something in her mouth. From where I sat it looked like a bunch of grass. All at once she dropped it and as she turned to run she gave three sharp barks and disappeared down through the brush. At that instant we noticed a baby fox down near the rock where she had been. I said let's catch it so we started to run. The little fellow retreated some four or five feet and stopped. I ran down and picked it up by the neck but I was more interested in what the old fox had in her mouth so we turned around and there on the rock were seven garter snakes and one green snake. Two of them were still alive but could not crawl as she had bitten every one of them. I picked up all of them and took pictures of them. If the pictures turn out good I will send you one. I brought the little fox home and while I am writing this I can hear him barking like a little pup. After looking the little fellow over I discovered what made him dig so much. He had several ticks in each ear and one in the corner of his eye. By the way the deer leg was a large one and the deer hair was winter hair. No doubt it was one that had been shot last season."—Game Protector Wm. J. Carpenter, Mt. Jewett, Pa.

Members of the Northampton Rod and Gun Club of Glencoe did a pretty good job reducing the fox population locally. K. G. Miller, Club Secretary, said a total of 75 were taken, along with some minks, weasels, opossums, skunks, etc.

TOP TURRET GUN NOT NEEDED

On the morning of May 10, while driving n a dirt road in Cumberland County, I oticed a Cooper's hawk approaching from ıe right. I stopped the car and watched ıe hawk cross the road and head over an pen field. Flying about twenty-five feet ff the ground, the bird was about thirty ards from my car when I saw a Sparrow Iawk diving at the accipiter. As the smaller awk closed the distance between itself and he larger hawk, the latter suddenly turned ver onto its back and presented its open nd outstretched talons to the onrushing ursuer. The sparrow hawk, appreciating he change in aspect of the situation, imnediately cut its dive inches short of acual contact. The Cooper's hawk resumed ıormal flying position with a flip, flew sevral yards and alighted among the branches of a small tree. The sparrow hawk hovered ver this tree a few seconds, then flew off n the direction from which it had come.

As nearly as could be observed, the Cooper's Hawk had flown about ten yards with its back to the ground, without appreciable loss of altitude, in this amazing display of manouverability in flight.—C. R. Studholme, Research Assistant.

Note: A. C. Bent in "Life Histories of North American Birds of Prey" cites a similar observation where a Cooper's hawk turned over on its back, spreading its murderous claws wide open, a quail actually falling into them. It all was done in about ten seconds.

"On June 16, 1943 I received a telephone call from Mr. Ottis Tubbs, Turtle Point, Pa., informing me that bear had done damage to his livestock. I immediately contacted Game Protector Wm. J. Carpenter, Mt. Jewett, who reported to headquarters and accompanied me to the Tubbs farm. Mr. Tubbs was very much disturbed because the bruin had killed one of his very valuable cows and a new born calf.

"Mr. Carpenter and I accompanied him to the scene of the killing and found where the bear and cow had fought a distance of three hundred feet down the mountainside to a point where bruin finally killed the cow. On the clearly defined trail a distance of two hundred feet from where the cow was killed we found the calf partly eaten by the bear.

"After concluding our investigation Mr. Carpenter and I moved a bear trap to that section. The following morning when we visited the trap we had a large bear in a very ugly mood, which we released elsewhere."—Claude B. Kelsey, Port Allegany.

"While stocking quail recently in Powl's Valley the birds were constantly annoyed as soon as released by hawks which seemed to appear from nowhere; especially sharp-shins. On one occasion a sharp-shin was so bold that it swooped down and struck at a bird that was about to emerge from the crate. From the above cited incident I got an idea of releasing the remainder of the birds with the aid of a shotgun. By this method three sharp-shins will no longer dive on quail.

"Last week I saw a broad-wing catch a snake in a marshy area and proceed toward the mountain with the reptile dangling from its talons. Locomotion was somewhat retarded and I had a good long eye full. The bird appeared to hold the snake (presumably a garter snake) by the head and how it did squirm. I concluded that the bird had a nest of young back in the hills and intended it for them."—Game Protector, Mark P. Motter, Colonial Park.



Photo courtesy Johnstown Tribune and Democrat.

Mr. K. D. McGee, Ebensburg, and his buddy, Leonard Orange, found double tragedy in a sparrow hawk and small snake clasped in the bird's talons atop a telephone pole on the road between New Germany and the William Penn Highway recently. One talon gripped a hot wire while the other held the reptile. The men came to the conclusion that the bird lit on the wire with the snake, which by its extended length touched a ground wire on the pole, electrocuting both—if the snake was not already dead.

"During the last couple months, field officers in Cumberland and Franklin Counties have put on an extensive campaign to reduce the number of foxes in the Letterkenny Ammunition Depot.

"To date, May 3, they have killed 50 red foxes mostly with the use of Acting Game Protector A. M. Crist's small creeper dogs.

"At one den there was conclusive proof that the parent foxes had killed and taken 14 wild rabbits as the officers found 14 rabbit tails in the den. That was the largest number found at any one den, but practically all showed evidence of rabbit, quail, meadowlarks, ringnecks and small rodents."—Field Division Supervisor, Wm. J. Davis, Huntingdon.

"On April 7 a deer came into the city on the east side, crossed over the Pennsylvania railroad bridge to the west side, wandered around on Altoona's two main avenues, entered two parking lots, jumped across the hoods of cars and at last appeared at Chestnut Avenue and 2d Street where it lay down in the middle of the streetcar track played out from the excitement. A man picked it up and carried it into a garage. I was then called and upon going to the garage found it full of life but managed, with help, to put it into the trunk of the car. It was then delivered to the Allegheny mountains and released."—Charles C. Brennecke, Game Protector, Altoona.

"A hunter by the name of Lawrence Liggett shot a deer at Smethport, Pa., which I think is a State record. It has 27 points, 26 inch spread, left antler 4½ and right 5 inch base. The total length of both horns and points total 176 inches. Mr. Liggett is from Ransonville, New York."—Jonas J. Haseley, Sanborn, New York.



Photo by Max Muehlbauer.

Jimmy Grogan sitting and 300 lb. black bear killed in Potter County last season. Others left to right include: Jim Cook, Dick Strittmatter, and Randall Schreckengast.

Field Notes

"During the month of April a total of 50 red fox pups were killed on the Letterkenny Ordnance Depot, Franklin County. The animals were killed through the use of creeper dogs, owned by Deputy Crist, Chambersburg.

"Red fox den containing 12 pups was destroyed by farmers on the Russell Bower farm, in Southampton Township, Cumberland County.

"A mocking bird apparently has decided to make Shippensburg its home during the summer months. I first observed this bird the first week in April and it has been in the immediate vicinity of my home ever since."—Game Protector George D. Bretz, Shippensburg.

"An interesting sidelight in apprehending a game violator was recently experienced by Game Protector Lester Shaeffer of Fayette County. A full identification of the defendent proved him to be a fugitive from Federal justice with a reward of $200 for his capture (pending conviction before Federal Court). Although involved in attempting to kill a deer at night with aid of a spotlight, he was not prosecuted for this offense, but promptly turned over to U. S. Postal authorities for prosecution on a charge of robbing the mails, felonious assault, etc." —Field Division Supervisor Rollin Heffelfinger, Irwin.

"There are not very many deer and hardly any other game to be seen. There are a great number of red-tailed hawks around this year. I think they are more destructive to small game than foxes."—Land Management Protector, Ernest E. Hunsinger, Austin.

"While scaling timber on State Game Lands No. 16, I was privileged to have an albino deer for company. Although I scared the animal away four times trying to get near it, each time it returned, coming as close as 100 feet. I checked with the lumbermen and they told me that it is a daily visitor on the job."—Land Management Protector, Paul L. Failor, Mt. Pocono.

YORK IWLA ACTIVE

The York Chapter was chartered in 1926 and through the years has been active in planting fish and game, fighting pollution of our streams and working for the betterment of our glorious out-of-doors. Today the Chapter owns its own property in York Township conservatively valued at $2,000. The property was purchased and will be improved on a pay-as-you-go-basis. The war of course, prevented the chapter from erecting a building and improvements on the property, but not from raising funds for the purpose, because it now has on hand $1,500 in cash awaiting the day when the association can start building. In the meantime, the members can enjoy the grounds, on which are erected a picnic shelter and fireplaces.

A beautiful stream flows through the tract offering good fishing and swimming or wading for the youngsters. The entire area including 30 adjoining acres is set aside by permission of the Game Commission as a training area for dogs. Members are required by law to carry their membership card when training dogs.

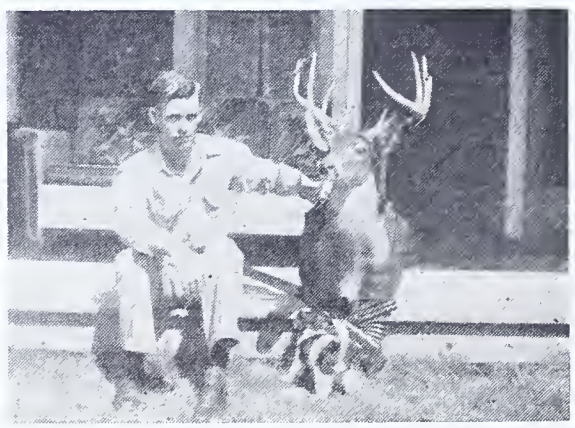
The Chapter operates two game propagation areas, the Paul R. Hostetter tract near Thomasville and the Jacob M. Smyser tract near Pleasureville. Each year several hundred rabbits are trapped and distributed.

SPORTS GROUP MAKES AWARDS

More than 125 members of the Milton Fish and Game Association attended a ham and egg super Monday night in the Milton Moose home at which awards were made to those who had brought in the most members. The association now has more than 500 members and is the largest sports association in Northumberland County.

Rev. Clair E. James, pastor of Christ Lutheran Church was the toastmaster and presented the awards. Harry W. Fry carried off first prize of $15 for obtaining 127 members from January 1 to April 15. Delvin Fruit was awarded second prize of $10 for obtaining 115 members and John Weller received third prize of $5 for obtaining 43 members.

Game Protector Bruce P. Yeager, of Northumberland was the principal speaker. He pointed out the need for all sportsmen to be more alert this fall and to help prevent violation, now that so many of the Commission's field force are in the service.



Ten point, 21½" spread; 170 lb. hog-dressed deer killed by H. E. Pierce of South Connelisville on December 9, 1941 in Fayette County.



Eight point deer killed by R. V. Frankhouse on November 29, 1943 in Clearfield County brother Alex standing by tree. Notice this dee had no flag—someone gave him a close cal in past years. Who was it?

"During the evening of April 10 and for approximately a week or ten days thereafter I had the opportunity of watching several woodcock go through their seasonal singing flights. These woodcock would raise in flight as near vertically as possible to a great height and then start descending almost straight down in a sharp zig-zagging flight. At the same time chattering and singing all the way, always alighting on approximately the same spot. I watched them make a dozen of these flights in about that many minutes and they kept up this exhausting pace even after it had become totally dark. They made a flight on an average of every minute and one-half during the time I watched them."—Land Management Protector, Howard F. Hoffman, Susquehanna.

"I know now how much fun I missed with the fox hunting in the Letter-Kenny Depot, but I got in for the biggest kill on April 25 when we got 9 red fox pups. I think we may be able to persuade the Depot Officers that we can get most of the old foxes if we are allowed to carry shotguns, the Captain in charge is trying to get us that right."—Land Management Protector, D. H. Franklin, Shippensburg.

"The hens in Turkey Propagating Area No. 17 are so wild that I can hardly count them anymore. On account of the cold weather, they have not started to lay as I have found only one nest, and that had just the first egg. Have had three gobblers in the area for sometime."—Land Management Protector, R. F. Turley, Martinsburg.

"On April 29 while returning from State Game Lands No. 127 in Brady's Lake to Headquarters at Minooka, a distance of 32 miles, I counted along the road 27 deer in 5 different groups, 3 cottontail rabbits and 12 ruffed grouse. In the last group 5 grouse were perched on aspen trees feeding on the buds. If this can be used as a barometer there will be plenty of game for the boys when they return to hunt again."—Land Management Protector, Peter A. Zikosky, Scranton.

Wins Freeland Prize

Henry Gorski won first prize in the annual ermin-trapping contest sponsored by the uzerne County Game and Fish Conservation ssociation of Freeland. Winners of the contest, held from October 1 to March 31, were nnounced following a meeting of the association held recently. Gorski trapped 14 easels.

Club officials reported that since the vernin contests were started in 1928, local rappers have killed 2,201 weasels, 76 mink, 3 foxes and six bobcats in that region. t is hard to estimate the total amount of ame saved by these killings, but woodsmen hemselves know that is very considerable. ollowing is a breakdown of the number ermin killed in the yearly contests:

Year	Weasel	Mink	Fox	Bobcat
1928-29	183	8	2	0
1929-30	221	14	8	0
1930-31	169	9	2	3
1931-32	207	11	5	3
1932-33	459	5	15	0
1933-34	282	6	10	0
1938-39	18	1	0	0
1939-40	122	11	2	0
1940-41	173	11	6	0
1941-42	155	0	3	0
1942-43	172	0	0	0
1943-44	40	0	0	0
Total	2201	76	53	6

The contest during the past season was not so successful as in other years, for two reasons. The older youths who were interested in trapping are nearly all in the army, and most of the trapping is being done by young boys who are not experienced. In addition, the game club in past seasons always furnished steel traps free for each and every vermin kill reported. This season, the club is unable to offer free traps, because traps are off the market.

The water snake contest will not be held this year, because usual contestants are in the armed forces.

The Freeland club has also been active in stocking game and fish. Since its organization 14 years ago, club members have purchased and stocked over 1,000 rabbits, This has been discontinued for the time being, as too many rabbits purchased in the midwest died in shipment.



Nancy Hope Miller, Red Hill, proudly displays daddy's and companion Harold R. Faut's duck shooting ability along Perkiomen Creek first day of season.



Pupils of the Salisbury High School displaying bird houses built during the past Spring under the guidance of Professor Dun, shown at bottom center.

"Lawrence Burdick, Waterford garage operator, dug out a fox den this spring and bagged a vixen and four pups. In and around the hole he found the remains of 16 rabbits, 2 pheasants, 1 muskrat, 12 woodchucks, 12 chickens and a 3 ft. watersnake. The vixen was bringing in the snake when Mr. Burdick shot her.

"Last year in a lumbering operation three sycamore trees holding thirty heron nests were felled, destroying the nests. This spring the herons rebuilt their rookery in elm trees at the same location. Near here is a beaver dam and the water backed up by it had drowned out these large elms. In these trees the herons have completed sixteen nests so far. While setting beaver traps to control damage, I frightened the large birds and they circled overhead like a group of bombers seeking a landing."—Game Protector, Land Management, Elmer D. Simpson, Cambridge Springs.

"Rains have hindered tree planting in the early part of the month and now forest fires are getting in their work but in spite of these hinderances and the lack of labor we are getting a lot of planting done.

"During tree planting work in good rabbit areas only one rabbit nest containing young has been found, these were old enough to leave the nest."—Game Protector, Land Management, Elmer L. Pilling, Philipsburg.

"Some of our deer have remained down in the farming section and I am getting complaints of crop damage; also stray dogs running at large. Most of them do not have licenses on.

"Mr. Arthur Logue and Mr. Heffelfinger were at Headquarters and I received some very good instructions from Mr. Logue on vermin trapping.

"I believe that everyone that could get into the mountains last Sunday was here, and quite a lot of them were fishing along the streams."—Land Management Protector, Wm. G. Matthews, Ligonier.

Moss Club Active

The Moss Creek Rod and Gun Club of Marsteller has been doing a mighty fine job. Among other things it purchased 300 rabbits for restocking, trapped 60 more and released 75 ringnecks. It also purchased and released 3 dozen jack rabbits which it is trying to establish in that part of Columbia County. The club is not a large one, numbering only about 160 members, many of whom are in the Service. But it is keeping the ball rolling until the boys come back, and is planning to send members in the Service a free subscription to GAME NEWS.

"Most of the migrant ducks had left the Refuge area by the middle of April. The people of this area report seeing many more Canada geese still in the area than ever before. Every evening about twenty or so come to Ford Island and eat the winter wheat that is planted there. Between the woodchucks and the geese the most remote piece of wheat has been kept eaten close to the ground and will probably not produce much grain.

"Have had several fires in this area during the last of the month. On one occasion after extinquishing a fire on Forests and Waters property I observed a mother woodcock leading her young brood from the burning area. . . . . .

"Have seen several young rabbits and found a nest of five in the lawn at Headquarters. The mother rabbit does not seem to feed the young until late evening.

"One day while fixing refuge wire near the spillway I heard some geese start a commotion and begin to honk and fly short circles just west of the spillway at the point of land extending toward the Glenn Islands. Presently a lone goose flew over us honking for fair. The reason for all the excitement was apparent when we saw a steel trap was fastened to its leg with the chain dangling back and forth. The goose flew east into the refuge and has not been seen since. Probably some muskrat trapper's negligence will result in the death of a wild goose or at the least in the loss of a leg.

"Have seen several double breasted cormorants, some upland plover, Bonaparte's gulls. Shorebirds are beginning to migrate in and most of the songbirds are back."—Land Management Protector, Raymond Sickles, Linesville.



Two York County fox hunters. Left Daniel Lerew and right, Donald Felming, of Dillsburg with 27 out of 37 of last season's catch.



A LITTER OF DOBERMANS

In cooperation with the Doberman Pinscher Club of America and the U. S. Marine Corps, the Dogs for Defense War Dog Breeding Committee has been authorized to raise specially bred Doberman puppies, which at one year of age will meet the rigid specifications of the Marines. The qualifications are as follows: sex—males only; minimum height—at withers 25 inches; minimum weight—60 lbs.; bold, alert, not gun shy, and exceptionally intelligent.

All communications should be addressed to Dogs For Defense Breeding Committee, P. O. Box 1332, Philadelphia 5, Pa., W. Newbold Ely, Lieutenant Commander U. S. C. G. R., Regional Director Dogs for Defense, Chairman National War Dog Breeding Committee.

"Since the snow has left the mountains and fox hunting has practically ended, the members of the Warren Field and Stream Club have turned their efforts to other methods of preserving wildlife in Warren County. About two months ago, at a club meeting, they volunteered to assist in planting food-bearing trees and shrubs on State Game Lands in the county. So on May 7, 1944 President McKinley, with a large number of his enthusiastic followers, departed for State Game Lands No. 143 to aid the Land Manager in starting some seedlings on the way to furnish feed for game. The planting consisted of 500 Osage Orange, 400 Dogwood, 250 Wild Sweet Crab Apple, 2500 Japanese Rose, 2000 Mulberry and 2000 Hawthorn, making a total of 7650 seedlings. We hope enough of these seedlings survive to furnish food for all the game in that locality, because barren land offers no opportunity for game to live and reproduce."—George H. Burdick, Tidioute.

"Mr. Mays, living on a farm below Clintonville which is some distance from game lands has reported as many as eleven deer on his wheat at one time."—Game Protector Ralph H. Ewing, Franklin.

"I have been successful in securing a troop of Boy Scouts to assist in the spring planting of seedlings if we can manage to schedule a Saturday afternoon between the paper and scrap drives that they already have been planning on."—Game Protector Jack P. DeLong, Portage.

"I found several nests of small rabbits before the rainy season and since the rainy season I made another check and to my surprise all were alive and hardy.

"The other day a farmer found one of his guinea hens nesting some distance from his buildings and noticed two kinds of eggs. It happened that a ringneck hen also laid a few eggs in the same nest. (Probably saving nest material for the war effort.)"—Game Protector R. E. Holtzapple, Mt. Gretna.

A young doe, which made a visit to Blairsville recently, turned out to be venison for the patients at Torrance State Hospital today.

The deer, badly frightened at its strange surroundings, dashed wildly down Market street in Blairsville. It cavorted on the sidewalks and then dashed into the street. Seeing a group of people, the doe turned and darted north on Stewart street, disappearing into an alley.

It later crashed into a fence at North Alley and East Lane, breaking its neck. Police were called but the young doe had died of its injuries.

MY FIRST GUN

"I am probably one of the youngest Pennsylvania GAME NEWS followers having just passed 14 years. I have just finished my apprenticeship to become a gunner. I have been a bush whacker for three years and now I am informed I can get a license to gun next year if I gun with my daddy which I intend to do.

"Now fellow gunners my problem is, I have an uncle who is very good to me and he has promised to buy me my first gun and I want a sixteen gauge—28 inch barrel-double barrel. Maybe some of you can tell me where I can get one.

"Thanks an awful lot."—Ray Wambold, Jr., 4614 Vankirk Street, Philadelphia, Pa.

"On January 1, 1944 I set six fox traps. The job took me about 6 hours. They were all baited with bait I make myself. The next morning I looked for about 2 foxes. Instead I caught 3 dogs. They did not have licenses. The traps were set a good two miles from any house. Dogs run the woods here in packs the year around. That is where all the rabbits and small game is going. There is far more game being killed by dogs than the foxes ever killed. I believe any trapper will back me up on this.—John McCauley Rouseville.

"Due to the extremely large gray fox population in practically every township in Lancaster County, resulting in greatly decreasing the small game formerly abundant here, not to mention the terrific toll taken from poultry raisers in this county, public opinion has been aroused to fever heat (thanks to the splendid cooperation of our local newspapers), to the extent that many persons who had never hunted or trapped for foxes are now deriving much pleasure in helping to alleviate this unhealthy predator situation. Some of our sportsmen have purchased fox hounds and den dogs just for the express purpose of hunting and killing off some of the surplus foxes, while others have banded together in conducting drives similar to deer drives, while still others have "gone in" for trapping.

To partially illustrate the intense interest aroused here it has been called to my attention recently that a number of war workers, employed at the local Armstrong Cork Co., have sought out one of their fellow workmen, who traps for foxes and weasles every other week-end, for specific instructions in fox trapping. The latter, John F. Shoffstall of Dauphin Street, Lancaster, who has been trapping predators for years as a sport, generously consented to demonstrate his various sets to the following men who have signified their interest: Jack Warfel, Mt. Nebo; "Barney" Rhinehart, Pequea Valley; Dick Wile, Mountville; Elwood "Red" Kline, Washington Boro; Dick Bowers, New Providence. It is my understanding that these men have never trapped for foxes before, but I am of the opinion that they will be enthusiastic predator-control sportsmen after receiving the expert instructions from Mr. Shoffstall.

Mr. Shoffstall's unselfish and sportsmanlike attitude might well be emulated by other fox trapping experts in sharing their "secrets of the trade" in making practical demonstrations for other amateur predator trappers and it is hoped that these new devotees will continue to "spread the gospel" after they, themselves, become experts. As an interesting sidelight along these lines, the son of Harry Wade, of Millersville, taught his father how to trap for foxes before the former left for the Navy this past fall and in a very short time the Senior Wade (who incidentally is a very busy businessman), trapped several gray foxes close to his home in Millersville."—Game Protector, J. M. Haverstick, Lancaster.

Outlaw bears started their depredations early this year according to Game Protector Arthur G. Logue who said one destroyed several beehives owned by Howard Hosmer. Another killed two sheep on the farm of a Mr. Goodrich. Traps were set for the marauders immediately.

An injured cub turned over to Mr. Logue by some hunters last Fall fully recovered under the Protector's care and was released recently near Conrad on Game Refuge No. 515. A tag was placed in its left ear. It reads "Tag No. 2. Report to Pennsylvania Game Commission, Harrisburg, when killed." It is believed to be the first bear ever tagged and released, and the same practice will be followed in other cases to determine more about the range of the animals.

LESSON IN GASTRONOMY

"I with a party of friends from Rochester, Pa. have been hunting for years near Coudersport, in Potter Co. On our many jaunts we always saw Porkies and numerous Porky signs, such as peeled trees, droppings, many holes and plenty of tracks. Each fall we put on a deer feed for our Boro employes and some County officials, also some of our close friends who also looked forward to this feed each fall. I planned a little joke on the invited guests the last deer season. Mr. Burkhart, one of my hunting Pals killed two big Porkies last fall the day before we started for home. I told him I would skin them and we were going to have them as "coon" when we had our deer feed. We did not tell a person they were Porkies. On the night of our feed we had about 45 friends present, they all wanted a piece of coon and did eat freely while it lasted. I was leaving early on that evening, so I ask permission to speak a few words before I went, permission was granted and I got up and ask this question, how many people here tonight have eaten coon for the first time this evening; at least 25 raised their hand to signify it was their first time to taste coon. I said alright gentlemen you have been eating Potter County Porcupine; gee if you could have seen the expression on many of their faces, but not one of them said a word against it, so I came to the conclusion that it is as good as some other of our many species of game. We had it frozen for about 30 days, and I thought it very good myself. Personally I think there are too many of them in the woods now and should be kept under control. They are a menace to a certain species of our common pine trees.

"P. S. If you think this worthy of putting in our valuable little GAME NEWS I will appreciate having you do so."

A. F. PEARSON

Close the doors, they're coming in the windows! Whether a hen pheasant was misled by the sparklingly clean windows in the home of Mrs. J. D. Smith, Titlow's Corner, Pottstown R. D. 2, or whether it was completely "twitterpated" by the balmy spring weather, still remains a mystery to Mrs. Smith.

One morning about 8 o'clock she was startled by hearing what she thought was an explosion in her dining room.

Upon investigation, she found the glass storm window and the house window pane, each about two by three feet, shattered on the floor with a hen pheasant lying stunned amid the debris.

The bird must have been so startled, it flew through the windows without noticing them.

The pheasant lay stunned for about five minutes, but when it was taken outside it flew away, apparently unhurt. And without paying for the damages, either.

All of which proves that a bird in the window, er, is worth—is worth an additional clause in insurance policies covering loss by befuddled birds.

With Those In Service

(Continued from page 12)

"Thanks for your very interesting and informative letter. I have figured that for a letter to reach me it must travel just about 13,000 miles. A few have made the trip in 8 days from date of post mark, the usual time is 15 to 30 days.

"I can well believe that the accomplishment of your work is getting to be quite a problem with the resignations and men in the service. But in spite of that your rabbit trapping program looked very impressive.

"Right now we are beginning to appreciate what they mean by the monsoon season. It starts officially about May 1 and continues for four or five months. During this time it rains about 5 days out of every 7. When it is not raining the heat of the sun is terrific, melts you right down. Some areas receive better than 300 inches of rainfall a year.

"This is very good hunting territory; tiger, deer, buffalo, leopards, numerous other animals and an abundance of birdlife. Some of the most beautiful specimens of birds I have ever seen are here. Recently I shot a very large black squirrel; weighed about 12 lbs. and measured about 36 inches overall. I salt cured the skin and started it on its way to my home. If it arrives safely I plan to have a taxidermist tan it properly for me.

"You asked how things were at this end of the line. Censorship prohibits us from telling much of the most interesting things. Our food is fair, all canned, including the dehydrates. At present our living conditions are better than usual, we are in tents. Usually it is a bamboo frame with a canvass tarp over the top. Other times it is a jungle hammock or a hole in the ground. Believe me the Chinese and Japanese are some diggers. My present location affords no recreation or entertainment, although there have been times when we had the opportunity to see a few movies. In my opinion the jungles of Burma were never meant for white men. I am afraid many people are going to be enlightened on conditions in the war theatres after those who are there get back to tell their stories. Many of them will not be pleasant stories, I am certain.

Well, I have rambled along for sometime and as the end of the paper is in sight I'll say so-long for this time.—Cpl. John S. Shuler.

P. S. Bob Latimer is about 200 miles from me at an air base in India. Hope to see him sometime.

The U. S. Fish and Wildlife Service advise that the new "duck stamp" for 1944-45 will be taken from a drawing by Walter A. Weber, well known wildlife artist.

In 1934-35, the first year of issue, 635,000 stamps were sold. Peak sales occurred in 1941-42 when 1,440,000 were sold. Despite war-time restrictions on hunting due to lack of ammunition and gasoline, more than 1,125,000 of the current series have been sold through March 31, 1944.

WILDLIFE DRAMA

One of the most dramatic struggles for existence by a specie of wildlife is being enacted on the Catalina Mountains and Tucson Mountains in Pima County, Arizona. The actors are desert bighorn mountain sheep.

In 1936 a survey was run on the Catalinas by the U. S. Forest Service. Eighty one head of sheep were found.

In December 1942 to August 1943 the same area was combed by Phil Welles, Field Technician under the direction of Theodore Knipe, Director of the Federal Aid Division of the Arizona Game and Fish Commission. Mountain sheep range in extremely rough, precipitous country, the most of it accessible only to persons traveling on foot. The two observers were only able to locate six sheep on Pusch Ridge in the Catalinas. Three rams, three ewes, two yearlings and two lambs, a total of ten, were found on the Tucson Mountain area.

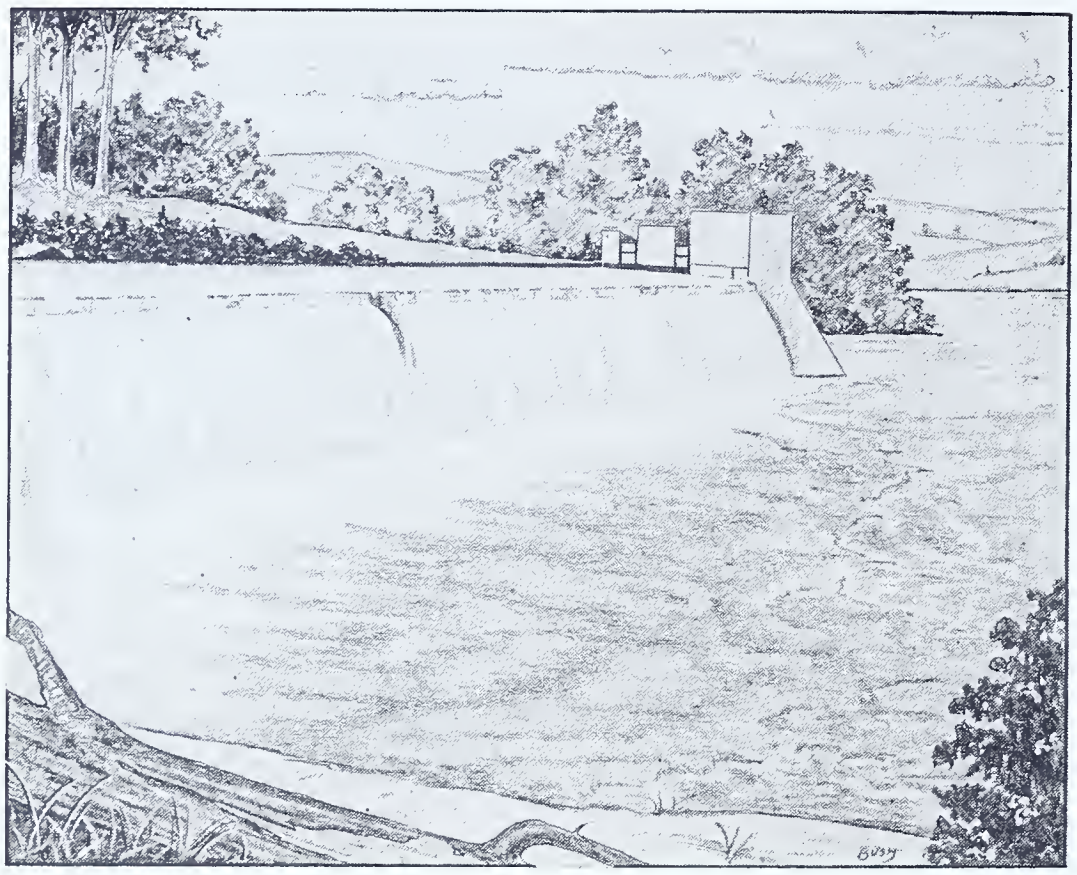
The investigators queried old settlers in the vicinity and it was estimated 500 sheep ranged the Catalinas alone at the end of the nineteenth century. Even as late as 1920 the Knagge Brothers living there reported seeing as many as six or eight sheep a day.

Encroachment of civilization on bighorn sheep range, building of fences and highways, competition on the range with domestic stock and adding poachers to natural predators is thought responsible for the reduction of Bighorn Sheep. The settling of the valleys and foothills with people has pushed lower ranging game animals up into sheep country and Welles has found them intolerant of other animals either wild or domestic.

Desert Bighorn are under total protection now. Four refuges have been established by the U. S. Fish and Wildlife Service for their protection. Two of these are in Arizona under the supervision of Geno Amundson, Yuma, Arizona. They are the Kofa and Cabeza Prieta Refuges.



Who is the lucky nimrod in this photo, which looks like it was torn out of an album? We want to give credit and return the picture. As mentioned previously, please complete name and address on all photos as well as other details, preferably on a separate piece of paper pasted on the back of the picture.



CONSERVATION

Conservation is the common sense utilization by man of all the truth man has discovered and uncovered to assist natural processes and laws to continue to function productively without the loss of beauty, in order that nature may yield the highest bounty now and for future generations.—G. R. Faint

"LETTERGOFLICKER"

By Randolph Thompson

April 17th a flicker began excavating a nesting cavity in a sixty foot dead poplar tree standing in a rather well protected location in Central State College.

The point selected was forty feet from the ground where the tree was eight inches in diameter, and the entrance was just below a fork where no limbs or knots were in evidence for a distance of two feet below.

The removal of dead and rotten wood consumed a period of three weeks and the ground for some twenty feet from the base of the tree was littered with innumerable tiny chips. Not a glimpse did I get of a mate during this time, and the work was evidently all done by a male bird.

Sometime during the first night following the completion of the job, a light wind blew off the weakened tree top, the break taking place at the point of entrance to the excavation.

An examination of the fallen top showed that the flicker had removed all wood to within a half inch of the outer shell over three-fourths of the circumference, a half the remainder was two inches thick and the balance the hole of entry.

At the time of this note a new hole is started half way up the stub, where the diameter is sufficient to accommodate the nest. Better luck this time I hope.

Friday evening, April 28th, the Union County Sportsmen's Association held a most successful dinner meeting, followed by a dance, at their newly acquired club location at Weikert. Some two hundred members—including the ladies of the participants—were present at the dinner, and others to the number of one hundred or more arrived later for the further festivities.

Largely because of the planning and foresight of Mr. Andy Herbster, Sportsman and Outdoorsman of Laurelton, and with the fine cooperation of other good citizens of his County, Mr. Herbster has seen his dream of many years standing begin to take form and materialization.

In an ideal location near the banks of the wildly rushing and beautiful Penns Creek and in the heart of Penn's Woods, the Civilian Conservation Camp location, together with several of its buildings and improvements have been purchased, and already plans for far reaching improvements are under way.

Following a fine dinner in the large and fully equipped mess hall, Judge Albert C. Johnson of Lewisburg paid high tribute to the project, its sponsors, and the aims in view, and he predicted big things for future sport and sportsmanship in Union County and surrounding territory because of this big start in the right direction.

The initial purchase of grounds and buildings was paid for in full through the receipts of a community festival held at Laurelton.

An option on the adjacent farm of 160 acres with house, large barn, and other buildings has been secured and plans are on foot to finance this purchase together with 300 acres of contiguous mountain woodland. A further addition of seven hundred acres of private preserve on the opposite side of Penns Creek for the use of the club is made possible because of the good will and cooperation of the owner.

The present plan is to finance the expansion through sale of shares at $25.00 each, a prerequisite being membership in the Union County Sportsmens Ass'n. Not more than four shares to be owned by one member, but membership to be open to out-of-county sportsmen.

Plans include a permanent caretaker and steward living on the premises, development of field trial facilities, creation of sanctuaries for game birds and animals, raising of game birds and experimentation with quail, growing of permanent and annual food crops, and keeping riding horses on the property for use of the members.

Further improvement of fishing on Penns Creek is another object in view and taken all in all much is possible in the future civic and recreational life of the community, and the project merits the cooperation and best wishes for success on the part of all.

An opossum which wandered into Allentown for a bit of city life life wound up being killed but not before he'd severely bitten a downtown resident who attempted to capture him.

Patrick Gallaher, 37, of Brick Street, near Allen Street, is nursing a half dozen deep wounds in the palm of his left hand which required cauterization and treatment at the Sacred Heart hospital.

Gallagher was walking on Tilghman Street west of Reidge Avenue shortly after 3 A.M. when a woman screamed from a second story window of a Tilghman street home that a small bear had just ambled by.

Gallagher caught up with the animal near 2d street and in the 10-minute battle that followed, the 'possum sank his teeth into Gallagher's hand and then hung on with a grip which Gallagher broke after he repeatedly struck the animal across the head with a milk bottle and killed it.



Harry F. Shartle, Womelsdorf, with trophy killed in Lycoming County last season.

Paying a Price

The pheasant raiser soon learns that "Eternal vigilence" is the price he must pay to raise a flock of ringnecks to maturity. Weasles, skunks, cats, dogs, raccoons, foxes, opossums and owls are the most spectacular enemies, but the most deadly are diseases, rats and hawks in the order named. It is of the hawks I wish to tell you, especially the cooper hawks; for they, like the rats, have a tendency to live off the ringnecks until they have exterminated the flock or until they themselves have been exterminated by man.

More hawks fly over a pheasant yard in a day than one would suppose, and the pheasants always see them. Except for a part or all of the months of November, December and January one or more usually pass over the yard every hour of daylight. Sometimes they are so high as to be barely discernible and often the ringnecks give warning of hawks when I cannot see any. When hawks migrate in late fall there is considerable excitement among the pheasants but usually the damage done at that time is negligible.

In the summer of 1943 a Cooper's hawk began to destroy a flock of about four hundred and fifty young ringnecks. These ringnecks, which were about the size of robins, were in an open top yard in an apple orchard. The hawk's method of procedure was to fly over the yard to see if the coast was clear. Either he flew too high or too far to the side for a gunshot. If there appeared to be no one around, then he would come down to within about twelve feet of the ground and come sailing down between the rows of apple trees and alight in a densely leaved tree in or near the pheasant yard. After waiting until the flock was feeding quietly he would drop down like a shadow and get away quickly and silently with a little ringneck in his talons. One day as I stood at the yard gate I heard no sound but happening to look I saw the hawk flying away with a young pheasant. My shotgun was leaning against the brooder house not ten feet distant but I did not have time to reach it. The little pheasants did not seem particularly disturbed but went on eating, dusting and flying about most cheerfully. Later on as his depredations continued they became terribly worried and too scared to eat unless some person was near.

We watched for him all day long even at noon or else put all the birds into the brooder house until my hired man and I could get dinner.

This hawk would often fly into the midst of the limbs of an apple tree and if I approached would fly out on the opposite side; sometimes if I ran around the tree I would get a glimpse of him just disappearing around some other tree. And, although we kept guns handy all summer we did not get one chance to shoot him.

Sometimes we found the bodies of young pheasants still warm, laid on an apple limb. He probably caused more than one hundred dollars worth of damage. His depredations never stopped until I caught him in a trap and so brought his game of "hide and seek" to a finish.

The Cooper's hawks are very persistent hunters, often pursuing their prey on foot, partly hopping and partly flying. Sometimes they catch ringnecks that are inside a closed yard. It would tax a man's ingenuity to stay outside a covered pen and catch the ringnecks inside but last fall the Cooper's hawks were doing just that.

One morning when I went to feed I found that some animal had killed a pheasant hen and each day for three days I found a newly killed pheasant hen. Since each was near the outside fence I supposed owls had done it. So, I set traps at night until I saw a cooper fly away from the place where there was a newly killed ringneck hen. So, I set my traps in the day time and when I visited them in the afternoon there was the villain, a Cooper's caught by one toe. I shot him. It may seem foolish to shoot a bird already caught in a trap but I had suffered too much loss to take a sporting chance. This was the bird that although outside the yard was catching the ringnecks inside.

To catch birds inside a yard, that is through the fence, the Cooper's either hunts in pairs or one would play the "game" practically the same alone. One hides in brush at the side of the pen or yard and the other flies overhead and scares the game to the outside fence then the mate in hiding drops to the ground and reaches through the netting and seizes the bird usually by the head. I could not imagine how they did it until I watched them one day, and you may be sure I was an interested spectator of their attempt to kill my birds. I saw them reach through the netting and grab for the birds heads and I knew their talons were long and strong enough to pierce the pheasants brain and I swore vengeance on them and killed enough of them so that they ceased to kill my property.

I have seen pheasants that had got out of a covered pen come back pursued by a hawk, and fly down to get into the pen to safety and keep diving head on into the wire netting until so worn out I caught them in my hands. From this it appears the hawks would destroy the wild ringnecks as they do the tame ones. So, if the ringneck hunting is ever to be good in Pennsylvania I think a price will have to be put on the head of the Cooper's hawk.—B. F. Cousins, Pheasant Breeder, Hadley, Pa.

An increase of nearly 400 percent in the population of game species of migratory waterfowl in North America during the past nine years was reported recently by Dr. Ira N. Gabrielson, Director of the U. S. Fish and Wildlife Service as the result of the Tenth Annual Inventory of Migratory Waterfowl conducted by that Service. Dr. Gabrielson said that the present estimated population of 125,350,000 birds was probably the greatest since the early 1920's. At the low point of the so-called "duck depression" in 1934 and 1935 the migratory waterfowl population had fallen to approximately 27,000,000.

He further declared that the comeback of these birds was "one of the great achievements of the conservation forces of this country" and that it provided "full refutation of those who believe that conservation is a negative thing."

Among the ducks, he pointed out, the largest increases have been shown by the Mallard and the Pintail. The total population of the Mallard at the present time is between 35 and 40 millions and that of the Pintail is in excess of 20 millions.

Third place is held by the Scaups, considered together, fourth by the Redhead, fifth by the Baldpate or Widgeon, and sixth by the Black Duck.

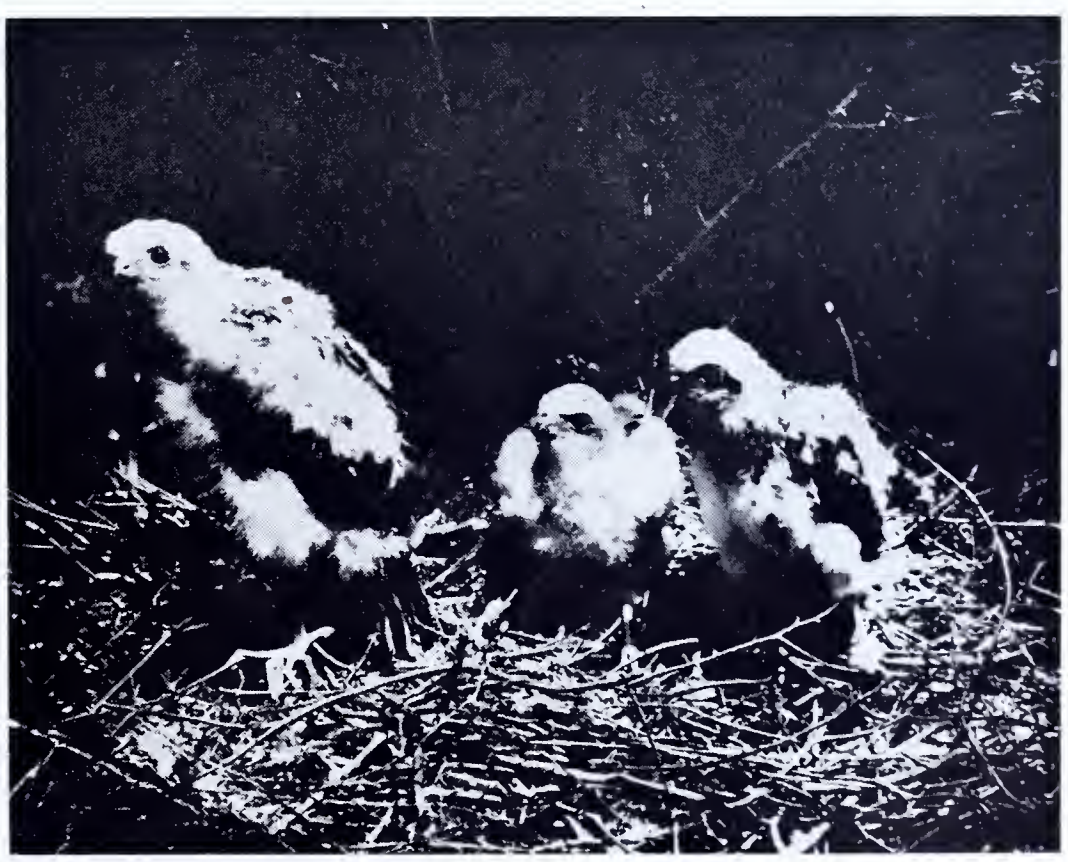


Photo by LaMar Mumbauer.

Young red-shouldered Hawks.

HAWKS IN FLIGHT

(Continued from page 3)



Top to bottom: Osprey; Marsh Hawk—characteristic attitude over marsh. Note white rump patch in lower illustration.

Taking at random a list from the annual reports, kept for the last ten years by the Committee's resident warden, we find the following figures on raptores observed:

Turkey Vulture	160
Goshawk	120
Sharp-shinned Hawk	1900
Cooper's Hawk	230
Red-tailed Hawk	5600
Red-shouldered Hawk	90
Broad-winged Hawk	2100
American Rough-legged Hawk	15
Marsh Hawk	100
Osprey	30
Sparrow Hawk	12
Pigeon Hawk	15
Duck Hawk	30
White Gyrfalcon	2
Black Gyrfalcon	1
Golden Eagle	35
Bald Eagle	50

A thousand hawks in one day was the high mark, occuring in November. The four hundred and twenty-five broad-wings in an hour the greatest concentration.

These numbers may appear large; it may flash across your mind, "If there are that many hawks around, why worry about protecting them?" Don't be fooled by a hasty opinion. Bear in mind that this ridge is probably the chief hawk migration route for all the northeastern states and eastern Canada, and that these numbers represent a fair amount of the total hawk population of this vast territory.

The lookout on Hawk Mountain presents a scene of wild grandeur; the panorama of farms, crossed by the silvery ribbon of a stream, spreads out below, and straight ahead the ridge itself, piney green splashed with flame, stretches out of sight into the north. The birds may be sighted a mile or two away, sailing head-on with set or beating wings. Here comes a crookwinged, silver and black osprey; next a fast-beating, dark-winged pigeon hawk; and, just coming into sight on motionless pinions of majestic expanse, a soaring golden eagle, the cold October light touching his head and neck with copper.

Hawks are grand birds, magnificent in flight, the very essence of the untamed wilderness. Their benefit to man has seemingly never been actively realized excepting in the laboratories of the learned. Our Government, through its Biological Survey (now the Fish and Wildlife Service), has, after exhaustive study, for years preached the value of hawks to the farmer and agriculturists; yet a motor trip through any of the farming sections will still show dead hawks, nailed to barn doors or hung up on fence posts.

Distinction between the beneficial species and the poultry thieves can be made in the field and acted upon, if one has not a twitching trigger-finger that pulls at everything that moves. The drawings accompanying this article are aimed at making this identification possible to observers standing on the ground watching hawks in flight overhead. So much of our scientific knowledge of birds has been acquired through viewing their remains and counting their tail feathers that the time now seems right to learn to recognize a good fellow without shooting him to make sure that he is harmless. Intense interest in the well-being of fellow creatures often goes too far as in the case of the inexperienced house-maid who was instructed to give her mistress, recovering from a nervous break-down, a sedative at certain hours. She entered the sickroom at three o'clock, the hour for the afternoon pill, and found her patient sound asleep. Shaking her frantically, she cried "Wake up! Wake up, Mrs. Bates! Sure and it's time for your sleepin' medicine."

In so many books field indentification has been made difficult by burial under masses of technical details of plumage, anatomical structure, etc. Read no further if you expect identification through scientific technicalities; I cannot even spell the words. Also, while straining to identify a speck in the sky, it mildly baffles me to remember that, in the eastern goshawk, the bare portion of the tibia in front is shorter than the middle toe.

Most of the hawks you see are extremely useful; the shifty robbers keep out of sight and let the others take the rap for them.

The more frequently seen soaring hawks are BUTEOS, slow-flying, fan-tailed, rounded-winged birds. Under this head come:

Red-tailed Hawk
Red-shouldered Hawk
Broad-winged Hawk
American Rough-legged Hawk

All of these feed, almost exclusively, on rats, mice, rabbits and other small mammals, reptiles and insects.

The drawings attempt to make clear the characteristic features of these BUTEOS in flight. It is interesting to know that the rough-leg has the tarsus feathered to the toes, but darned difficult to see from five hundred feet below. It is a safe bet not to take a shot at any big, slow-circling hawk; a hundred to one he did not take your chickens nor rob your pheasantry.

The handsome crook'd-winged, plunging osprey eats only fish, (those that he can keep away from his robber cousin, the bald eagle) and almost no game fish. Suckers, carp and sluggish salt water fish are usually his fare. Protect this bird everywhere.

The marsh hawk is that big bird you see so often, except in the winter months, beating back and forth over marshy swamps, just swishing the tops of the rushes with its wing tips. The white half moon on the rump is a good field mark. Lives mainly upon meadow mice, reptiles and frogs; takes a few smaller birds when it has young in the nest, but well merits the protection given it in most states.

FALCONS are those slashing, notched-billed, scimitar-winged pirates which mediaeval ladies liked to have sitting around in blinders and which were flown at game by these ladies and their knights on many a day of "gentle" sport in the Age of Chivalry. No dive bomber ever functioned with more deadly accuracy than a duck hawk as it stooped at some luckless teal or mallard. Gyrfalcons, those great white hawks from the arctic, could be flown only by royalty and thus came to be regarded as symbols of princely valor. Well were they called noble, masters of flight! The

uls of the old Norse heroes were borne to lhalla by Valkyries whose helmets were eathed in falcons' wings.

The falcons most generally observed in e east are:

Sparrow Hawk
Pigeon Hawk
Duck Hawk

The sparrow hawk is, perhaps, the most mmonly seen raptore. Perching on tele- one poles and wires, hovering over fields th beating wings, they are a familiar ght, summer and winter. Insects and mice e their chief food. Take a shot at the mily cat in preference to one at this little lcon.

Not so much can be said in favor of the geon hawk's habits; his reputation among mon-pure Auduboners is not lily-white. e would eat your grandmother's canary he got the chance—but, as a grand piece flight mechanism he is there one hundred r cent. Flies with dashing, headlong, geon-like maneuvers, and looks very dark. ou won't see him long unless you catch m through your glasses, perched on some w stump or tussock of marsh grass near e coast.

The duck hawk is a rare sight anywhere perfectly fearless—will tackle anything; a g, blackish-looking falcon, resident of the ildest cliffs, nesting in spots that are gonizing to ardent oologists. Not in the od graces of the small-bird lover nor the me warden. However, a magnificent bird! ut try to sell the local natives the idea of otecting a ten foot tiger hanging around e outskirts of an Indian village.

ACCIPITERS are long-tailed, short-, unded-winged hawks, represented here by:

Sharp-shinned Hawk
Cooper's Hawk
Goshawk

These are the generally black-listed hawks. The sharp shin, or little blue darter, is eath on the flocks of sparrows and other nall birds. Try this identification some me when you are watching a sharp shin woop by: "The bare portion of the tarsus n front is longer than the middle toe."

The Coopers hawk, excepting for a round- pped tail, looks just like a big sharp shin nd has the same habits. This feathered angster will take birds up to the size of a icker or good-sized pullet. Both these awks in immature plumage are brown, nuch streaked below, and mottled and arred on the under wing surfaces.

America's fiercest bird is, without doubt, he big, red-eyed goshawk, an accipiter of ed-shoulder size. From this bird could ome all the hawk-lore legends of ferocity. But what a spectacle of power as he swoops y! Lock up your pet Plymouth Rocks nd pray for your favorite ruffed grouse.

One thought let me leave with you; omething that bears on the whole situa- ion. It was found, on one of the largest ame preserves in England, that, when all he so-called "vermin" had been killed the grouse suffered from disease and died off n greater numbers than when the foxes nd hawks were "uncontrolled." Which ends to show that the predators usually ake the weakest birds, either sick or old, nd in this way really maintain a balance so that selected stock thrives better than nder overcrowded conditions, (with no birds or animals of prey to control the natural increase) when sickness spreads unchecked and whole preserves may be decimated.

The next time you see a hawk admire it for its perfect mastery of flight and spirit of fierce, wild power and don't wish you were looking at it over the sights of a .22.

There is a Bit of Good in the Worst of them

Editor's Note: In the Daily Dispatch, New Kensington, Pa., issue of Friday, March 10, 1944, C. H. Manley, an Audubon authority, takes issue with those who charge all predator birds as being "villainous killers." We quote Mr. Manley's opinion on the subject because we believe it contains a lot of horse sense.

"While scanning the evening paper recently the following item, headed 'Villainous Killers,' caught my eye. 'Cooper's, sharp-shinned, marsh hawks, great horned owls and screech owls are villainous killers of birds and wild game and should be the object of every sportsman's shells.'

"It was tucked down in one corner of a page on the inside of the paper and probably had been used as 'filler' to finish out the column; but there it was, urging all sportsmen to kill on sight, regardless of the laws of the state and the liability of a fine, just because the author, whoever he was, evidently was prejudiced against birds of prey in general.

"Like practically all articles of this nature, the fact that it contained some truth was perhaps the only reason why it was given any space at all in a reputable paper.

"It is true that all of the above mentioned birds of prey are killers of either birds or wild game, and some of them kill both; however, the term 'villainous' is hardly applicable to a creature that is governed wholly by instinct, and the instinct of self preservation at that. As I understand the term only a member of the human family can be properly classed as a 'villain.'

"Moreover, the fact that certain birds of prey feed to some extent on other birds or wild game does not justify demanding that all members of the same species be shot at every opportunity.

"In the first place the major part of their food may be of such nature that they really belong to the beneficial rather than the harmful class. And secondly, it is as unjust to condemn all members of any group because certain individuals go wrong, as it would be to class all men as crooks because some of them are dishonest.

"Of the birds mentioned, the Cooper's hawk feeds largely on birds, including some poultry and game. It also disposes of a lot of harmful rodents.

"The little sharp-shinned hawk lives about 90 percent on small birds but with less than two percent poultry and game in its diet.

"The great horned owl is big and strong and, as its home is usually in the deep woods, it feeds largely on wildlife of some sort. This includes rats and mice and other harmful rodents as well as game birds and animals.

"All three of these birds are listed as unprotected in the game code of the State of Pennsylvania and they no doubt destroy some game. Naturally a lot of gunners think that they are saving just that much game when they dispose of one of these.

(Continued on page 30)



Top to bottom: Broad-winged Hawk; Red-tailed Hawk and Red-shouldered Hawk.

Hits, Misses, and Home Runs - - - -

(Continued from page 5



Varying Hare or Snowshoe Rabbit.



Gambel Quail and native Bob Whites.



Elk on private Pennsylvania game preserve.



Raccoon.

creasing satisfactorily and extending its range.

One of our most popular game birds is the ruffed grouse, whose name, like that of the turkey, is on early hunting records as sporty shooting and good eating. These birds were preyed upon by the market hunter until the sale of game was stopped in 1897. But even then, because of the lack of strict enforcement, unscrupulous men circumvented the law and continued to take a heavy toll.

At first predator control was the only ready remedy, other than law enforcement, for increasing these game birds. A little later importations from Candada were undertaken, following which attempts were made to raise them in captivity. Over 300 birds were released between 1923 and 1939 in the hope that the added stock would spur the natives to bigger and better populations, but these efforts were of little value. If wild-trapped grouse could have been obtained in large numbers the results might have been very satisfactory, but they were nowhere to be had. Artificial propagation was a failure because these fellows stubbornly refused to respond. The whole rearing program had to be abandoned. Another complicated problem in grouse management is the occurrence of cycles or periods of abundance and scarcity. As yet, there is no satisfactory explanation of the cause, nor has any remedy been found to level out these "peaks" and "depressions" in the grouse supply. In periods when the cycle is at its height, grouse are plentiful everywhere over their normal range; when the cycle is at its lowest only a few widely scattered birds can be found.

In an effort to take some of the shooting load off the ruffed grouse, a north-western cousin, the sharp-tailed grouse, was introduced a few years ago believing it would like the home of its eastern relatives and decide to stay. But in spite of the fact that over 600 of them were shipped here and released in such likely spots as Clearfield, Elk, Jefferson, and Montgomery Counties and in the Allegheny National Forest, they apparently have refused to take up housekeeping in our forests.

Now lets turn our attention to the mammal side of the ledger. So far as the authors have been able to unearth, the Commission has never attempted the introduction of any "furrin" mammals, but they have tried to re-establish or increase the local numbers of certain native species with varying degree of success.

One of the unsuccessful attempts was the effort to restore elk in Pennsylvania. In 1913, 72 were purchased and released in Clinton, Clearfield, Monroe, and Centre Counties; two years later 95 were put in Potter, Cameron, Carbon, Forest, Blair, and Monroe; and in 1925 to 1927, 10 were turned loose in Elk County, but all these releases were of no avail. True, the elk semed to "come back" for awhile, and a few nice bulls were killed in the open seasons after 1923. But by and large the elk again passed slowly into oblivion, with only one small band left today. The available, undisturbed range was not sufficiently extensive to allow these timid creatures to engage in their usual nomadic wanderings without human annoyance. They apparently can't stand u against disturbance and driving hither ar yon by our army of deer and bear hunter The elk properly belongs in more extensiv and wilder country than we can offer ther and if they remained in any great numbe they would not only cause the farmers muc crop damage but would compete with the smaller relatives, the whitetail, on an alread overcrowded home ground.

And speaking of the whitetailed deer, t sportsmen of today constantly faced wit the problem of how to keep the preser number of deer to a level with the availabl browse, it seems far-fetched to admit tha at one time we really had to go to othe states and get additional players for th home team. In 1906 we went to Michiga and brought home 60 recruits to stock nev game refuges, then still a novelty. In th following years private breeders in Nev Hampshire, New Jersey, North Carolina Maine, Ohio, Kentucky and Pennsylvani shipped us almost 2,000 to put additional lif into our struggling herd.

By 1924 we had a vigorous, sturdy increasing herd, helped not only by the import but also by the favorable browse conditions A good growth of succulent sprouts is absolutely necessary to the welfare of these "critters" which developes as the lumbermen finish their cutting operations. Now we have plenty of deer but the increasing herd has caused trouble in more ways than one. One of the catastrophes resulting from a large herd was, while rapidly eating itself out of house and home, it was also eating the snowshoe rabbits out of their home ranges, and cutting in on the grouse and the wild turkey habitats.

The snowshoe or varying hare is larger than the cottontail and hangs out among the woody cover only, usually the thickets and swamps on the higher elevations. It is fleet-footed and sporty hunting, so the Commission did its best to avoid drastic reductions in its numbers. Consequently about 1919 it began to stock these fellows, and by 1933 well over 21,000 had found new homes in our woods. But importing them from Maine and other northern states was not satisfactory, since many died en route and were too costly. Later it was found (after 1933) that if seasons were closed occasionally and bag limits curtailed, the hares would oblige by producing an ample shootable surplus where proper food and cover conditions prevailed around their home base. However, if any surplus built up in this way is to be maintained, the deer herd must be kept to the proper level so that there will be sufficient food and shelter left to feed Mr. and Mrs. Snowshoe and family after the deer browse over an area.

From the woods and the snowshoes, we go to the fields and farm woodlots and its smaller distant cousin, the cottontail. It's safe to say that the cottontail is the most popular of all game animals in our State. It was always fairly plentiful, but being subjected to so much hunting pressure every year, with less and less cover in many areas, and because the sportsmen clamored for more rabbits, several plans had to be effected

(Continued on page 30)

A Compliment

"Would like to compliment your magazine
ı making me more homesick than any
her cause except my family. I was born
ıd raised in Pennsylvania and many of
e scenes in the magazine are pictures of
me of the very ground that I have hunted
'er.

"The boys in the outfit all are dreaming
the day when they can again return to
ıe peace and quiet of the woods and
reams. The Pennsylvanians are in the
ajority in our outfit so we can talk down
ıy 'furriners,' even those from Texas and
alifornia.

"What most of us are 'sweating out' is
ıe fact that before we can get home the
eople who weren't overseas or in the army
: all will have the game supply so de-
leted that those who come out of the army
ıte will find things rather well shot out.

"Another thing is that some fanatic will
ass a law prohibiting civilians from own-
ıg guns. This is wrong since most of
ur boys learn to shoot in the woods and
ills, the army just polishes them up.

"I have a son in Lancaster who is 3½ years
nd who I hope will in the future find as
ıuch pleasure as I have in Penns Woods.

"I read in our Service paper that Penn-
ylvania is planning on using the Vets who
re temporarily unemployed to do con-
ervation work. This is a good plan but
et's not open up all the woods to people
vho don't appreciate them. Leave some
arts where no cars are allowed and a
nan can get away from the 'dudes'.

"Might add a few notes on the game situa-
ion as we find it in England. Ringnecks
ıre super abundant and about the size of
ı small turkey. The English Hares are
o big that the dogs pretend not to see
hem for fear of getting trampled to death.
: believe the reason they are so plentiful
s that *all* the land is absolutely private
ınd the game belongs to the owner. There
s a lot of poaching and the 'yanks' are
retty frequent culprits until they (we)
realize what a serious offense it is to hunt
on other people's land. I'll take good old
Pennsylvania everytime with plenty of pub-
lic Game Lands and State Forest.

"My best wishes for your continued suc-
cess in the future. I'm planning a hunting
place of my own when I return. Prefer-
ably in Lycoming or Centre County."—1st
Lt. Robert C. Machen.

PENNSYLVANIA GAME COMMISSION

OFFICIAL 1944 OPEN SEASONS AND BAG LIMITS

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. **On November 1 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. (See Special Regulations for hours to set traps in open counties.) Raccoons may be hunted at night, with a noon-to-noon daily limit.

UPLAND GAME (Small game possession limit three days' bag)	Bag Limits Day	Season	Seasons Open	Close
Ruffed Grouse	2	10	Nov. 1..	Nov. 30
Quail, Bobwhite	5	15		
Hungarian Partridges (Statewide)	2	8		
Wild Turkeys (See 9 counties closed below)*	1	1		
Ringneck Pheasants, males only	2	12		
Rabbits, Cottontail	5	25		
Squirrels, Gray, Black and Fox (combined kinds)	6	24		
Squirrels, Red	Unlimited		Nov. 1..	Sept. 30, 1945
Grackles (commonly called Blackbirds)	Unprotected until Sept. 30, 1945			
Hares (Snowshoe Rabbits)	2	6	Nov. 15..	Nov. 22
Raccoons, by individual or hunting party*	4	20	Oct. 23..	Feb. 1, 1945
Raccoons, by trapping (Statewide)*		20	Nov. 1..	Feb. 1, 1945
Woodchucks (Groundhogs)	5	Unlimited	July 1..	Sept. 30
Bear, over one year old by individual	1	1	Nov. 27..	Nov. 30
Bear, over one year old by hunting party of three or more	2	2		
Deer, male with two or more points to one antler	1	1	Dec. 1..	Dec. 16
Deer, as above, by hunting party of six or more	6	6		

NO OPEN SEASON—Sharp-tailed Grouse, Doves, Cub Bears, Antlerless Deer and Elk.

MIGRATORY GAME BIRDS—(Seasons fixed by Federal Government. For species and regulations see separate summary issued with license.)

FUR-BEARERS—(See note under Special Regulations)*

Minks and Skunks*	Unlimited	Nov. 1..	Feb. 1, 1945
Otters*	Unlimited		
Muskrats (By traps only)*	Unlimited	Dec. 1..	Feb. 1, 1945
Beavers (Traps only. See 31 counties closed below)*	2	Feb. 15..	Mar. 1, 1945
Opossums	Unprotected until September 30, 1945		

***SPECIAL REGULATIONS**

Turkeys—Counties of Clarion, Forest, Jefferson, McKean, Potter, Snyder, Tioga, Warren and Westmoreland closed.

Raccoon Hunting—The season begins at noon on the opening date, and ends at same hour on the closing date.

Raccoon Trapping—Traps not to be placed before 9 A. M. on the opening date (see instructions below concerning lifting traps on closing date).

Beavers—No trapping in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bucks, Cambria, Cumberland, Delaware, Fayette, Franklin, Fulton, Greene, Huntingdon, Indiana, Juniata, Lawrence, Lebanon, Lehigh, Mercer, Mifflin, Montgomery, Northampton, Perry, Philadelphia, Somerset, Washington, Westmoreland, and York. **Non-Residents may not trap beavers.** One person may set, tend or operate 10 traps only. **Traps must not be placed closer than 15 feet from the waterline on any established beaver houses. Pelts must be tagged within 10 days after season,** and may not be sold or otherwise disposed of until properly tagged. Present them to Protector in District or County where trapped.

Trapping—Traps for fur-bearers and raccoons not to be placed before 9 A. M. on Nov. 1, or before 8 A. M. on any later opening date for trapping. The season on the last date indicated for trapping closes at 12 o'clock noon to permit removal of animals caught on the last night of the season and lifting traps by daylight.

Snares—May be used without springpoles for taking predators from December 16 to March 31, 1945, in all counties except Allegheny, Armstrong, Beaver, Berks, Bucks, Cambria, Chester, Dauphin, Delaware, Fayette, Greene, Indiana, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Somerset, Washington, Westmoreland and York.

(AS FIXED BY COMMISSION AT MEETING ON MAY 6, 1944)

Seasonal Browsing of Woody Plants - - - -

(Continued from page 9)

3. Deen, J. L. 1938. Methods of studying browse preferences of deer. Trans. Third North American Wildlife Conference, pp. 256-260.

4. Hosley, N. W. and R. K. Ziebarth. 1935. Some winter relations of the white-tailed deer to the forests in north central Massachusetts. Ecology 16:535-553.

5. McIntyre, A. C. 1932. The scrub oak type in Pennsylvania. Forest Leaves 23:-74-77.

6. Pearce, John. 1937. The effect of deer browsing on certain western Adirondack forest types. Roosevelt Wildlife Bul. Vol. 7, No. 1, New York State College of Forestry at Syracuse University.

7. Petrides, G. A. 1941. Observations on the relative importance of winter deer browse species in central New York. Jour. Wildlife Mangt. 5:416-422.

"While at camp in Cross Forks, Potter County during deer season I had an interesting experience with an 8-point buck. It was early in the morning, the snow lay very heavy on the ground and trees, and there was a very strong wind blowing. When leaving camp we walked about 300 yards down the valley and there on the side of the mountain was a big 8-point buck and 9 does. Hearing us coming they took off up the hill and kept covered by the brush. My wife and I trailed the buck all day and when just about to give up we noticed smoke coming from a farmhouse. We headed toward the farm and there in the field stood my big buck. Kneeling to get a perfect shot I leveled on it broadside just where the neck and front leg join. The bullet went almost a yard in back of the buck, which in the meantime looked up, walked a few feet, stopped and gave me another shot. Well to make my story short, I shot five times and it just shook its tail and walked into the woods. The moral of the story is never borrow another man's rifle for not knowing how it shoots it may be very disappointing and very dangerous at times.

Hits, Misses, and Home Runs - - - -

(Continued from page 28

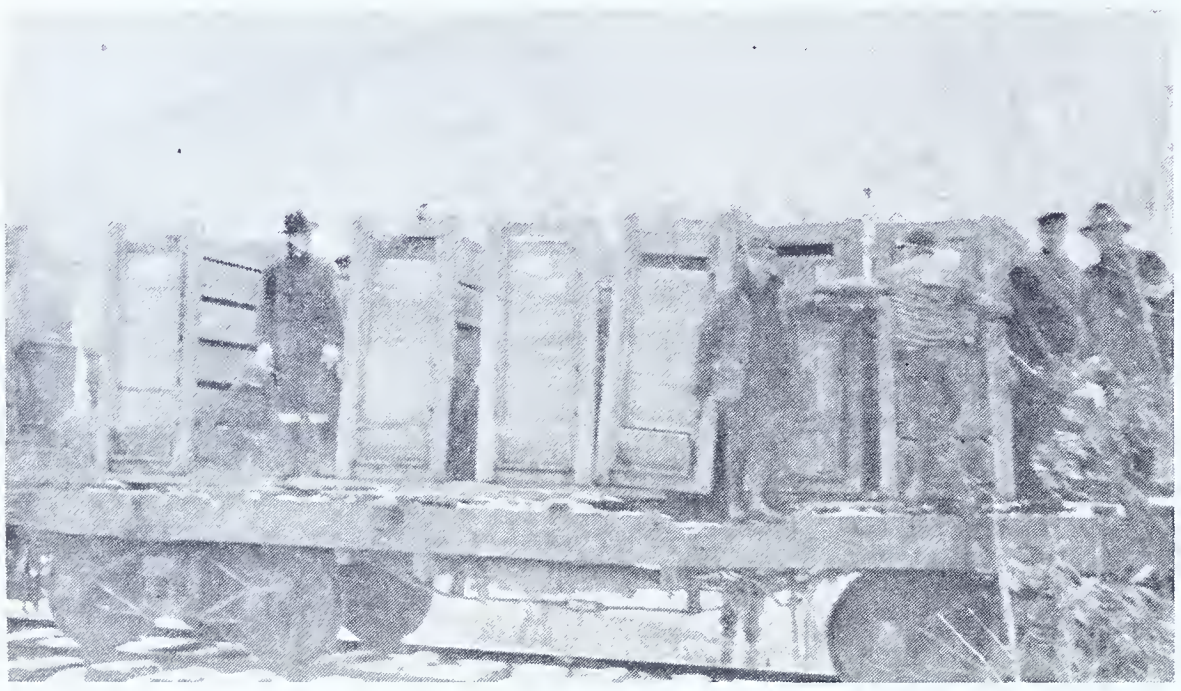


Photo by Seth Gordon.

Six crates of bull elk on flatcar belonging to Dents Run Coal Company, just a short while before releasing on Dents Run, Elk County, February 12, 1925.

to meet the needs of both hunters and rabbits.

Stopping such practices as using ferrets for hunting, letting dogs run at large, and selling wild rabbits, plus the cottontails natural ability to reproduce, increased the supply. Importation of bunnies from other sources on a large scale pleased the hunters but added comparatively little to the shooting stock, as research findings later proved.

Until 1933 practically all cottontails released were secured from places other than Pennsylvania; we bought them from Missouri, Kentucky, Kansas, and Oklahoma, mostly Missouri, but about ten years ago the Commission started a live trapping and transfer program. Rabbits were trapped from areas in which they had become too numerous or where no hunting was permitted, and released where public shooting was allowed. In 1943 none were purchased from outside the state but over 31,000 were live-trapped and released; this year over 33,000 were similarly disposed of. Since 1916, well over 1,000,000 cottontails have been stocked.

"Busy as a beaver" is an expression frequently heard, but about 1902 Pennsylvanians could have seen these little engineers at work only in the Poconos because the one remaining colony of the once vast supply of "black gold" which made wealthy men out of many early Pennsylvania trappers lived there. In 1917 Wisconsin presented Pennsylvania with a pair which established themselves on a game refuge in Cameron County. More were bought and released on other refuges until by 1921 there were thriving colonies in Cameron, Carbon, Centre, Clinton, Dauphin, Lycoming, Perry, Union, Sullivan, and Tioga Counties. These fellows really went to the business of building homes in a big way, and by 1930 were found in at least 40 counties. In 1934 beaver trapping again became profitable in Penn's Woods. Since that year, 17,165 have been trapped, there having been a season every year except 1935.

'Coon hunting has always been, and we hope always will be, enjoyed by Pennsylvania nimrods. In Colonial times, among woodsmen 'coon caps were a common part of their clothing, and now the devotees of the sport consider a "coon dog" as one of their most valuable possessions. Raccoons are classed game rather than fur-bearers, but have been intensively hunted for their valuable pelts. By 1926 raccoons were steadily disappearing from certain sections when 19 were trapped from refuges and liberated on open hunting areas. After these small releases showed favorable results, the Commission through private dealers and by live-trapping on game refuges and private preserves has stocked over 2,000.

However, the restocking program alone cannot be credited with restoring 'coon populations. True, the program aided somewhat, but while these releases were being made the woods were maturing and the 'coons found favorable conditions there and settled down to the business of living and raising big families. They are now plentiful enough so that hunting and trapping are again good sport, and pay big dividends besides.

There are three native squirrels which are classed as game animals; the fox, gray, and the red squirrels. Some, no doubt, will add a fourth kind the black squirrel, but since this is in reality a color phase of the gray there are actually three species, of which only two, the fox and the gray, have been stocked.

These frisky little animals have been stocked in goodly numbers to make certain the population would remain at a safe level, also to introduce new blood. More grays have been stocked than fox squirrels—the total numbers being 3,726 grays and 3,366 fox squirrels.

In summation, during the 48 years of its existence, the Game Commission has released nine species of game birds and seven species of game mammals. Of the birds, six were exotics which they attempted to establish as game birds in this state. However, only one, the ringneck, really becam a homesteader. Four others, the Gamb Quail, the Reeves Pheasant, the Chuk Partridge and the Sharp-tail Grouse ju refused to become citizens, and the Hu is on the border line between mere hangi on and failure.

Releases of the various species of mam mals were either attempts to reestabli former game animals and bring their nun bers up to a shootable surplus, as with th elk, or were made to keep the populatio on a level capable of sustaining heav hunting pressure, as with cottontails.

It must be remembered that all releas of any animals by the Commission wer made in an attempt to give the Pennsy vania shooters more and better sport, an that all releases were made on public hunt ing grounds or, where special protectio was needed, on Commission controlled ref uges. In every case, as soon as these animal had increased to safe population levels, the were put on the open game list. If the proved unsatisfactory, experiments wit them were discontinued.

HAWKS IN FLIGHT

(Continued from page 27)

"The other two mentioned, the marsh hawk and the little screech owl, are in an entirely different classification. Both are on the protected list in this state and, from all the reliable information I have been able to gather, justly so. Some authorities have claimed that, under certain conditions, marsh hawks have been more than ordinarily destructive of bird life, but on the whole, as a species, their diet is much more on the beneficial side than otherwise.

"Dr. J. B. May, who is probably one of the best authorities on hawks in the United States, in his 'Hawks of North America' lists poultry and game as only two percent of their food. This percentage was arrived at as the result of the examination of 418 stomachs and crops of these hawks, over a period of some forty years, by eight different scientists. Hardly a basis for demanding the wholesale slaughter of these birds.

"As to the little owl, which we hear much more often than see, it seems a shame to think of classing him with even the best of the others mentioned. A bird with a credit of 40 percent mice and other small mammals, and 34 percent insects in his bill of fare would seem rightfully protected by our game laws. True he is charged with a percentage of small birds, mainly sparrows, in his diet, but as most of these are presumably English sparrows we should not criticise him too severely for that.

"But that is not the whole story. There are other very important features which must be considered in this connection, and that is the value of these birds to our wildlife, and their increasing scarcity, particularly those on the unprotected list.

"As stated in a previous article, our birds of prey are here for a purpose. They are nature's health department, and each species

(Continued on page 32)

ighlights Wildlife Conference - - - -

(Continued from page 13)

on them depends the success or failure all such programs.

Mr. Ken A. Reed of the IZAAK Walton ague, attacked the Federal Dam Building icy, charging that the government has no ordinated water policy but allows water be exploited for and by minority groups. stated that more waste has been brought out by the idea that agriculture was the ghest possible use to which land could be t than by any other single idea or practice land management. Agriculture is not feasle on certain land regardless of improvent policies, and this must be recognized. also struck out against the general idea at all water is useless unless it is dammed, verted, or canalized. He stressed the need r pollution correction, ending his speech th, "Let's cleanse our streams before we m them."

After this talk, the paper given by W. E. Warne, chief of the U. S. Bureau of Reclamation, was of double interest. It was, unintentionally of course, a rebuttal of the charges made by Mr. Reed. He spoke of the fine work which was being done in irrigation as a result of dam building and stated that such irrigation makes possible great flexibility of crops. He mentioned the wildlife refuges which had been created around reservoirs and which are under the direction of the Fish and Wildlife Service. He promised that any future developments would be planned in cooperation with the Fish and Wildlife Service. He discussed rather fully the proposed development of the Missouri River basin and the benefits which would accrue to wildlife as a result.

It is, of course, impossible in a report of this nature to cover all of the factual information made available in the various papers presented at this Conference, for they covered many specific fields of conservation, including restoration of the wild bison, carrying capacity of deer yards as determined by browse plots, big game in winter, the growth of fish, conserving the fish crop, cooperation between commercial and game fish interests, managing the waterfowl resources, control of waterfowl depredations, game law enforcement, a cooperative approach to farm-game management, the decline in the sharp-tailed grouse and Hungarian partridges in Western Canada and an excellent panel on the function of wildlife and conservation education.

All of these interesting discussions in full will be available, through the American Wildlife Institute, Investment Building, Washington, D. C., sponsors of this thirtieth annual gathering of the Conservation forces of North America. The printed proceedings will cost $1.00 per copy.

MORE ABOUT 'CHUCKS

By Paul Shotzberger

THE woodchuck was one of the first animals I killed when I started hunting 25 ears ago, and I believe I was the first one hunt them successfully, that is, shooting or 20 of them till midday. Yet after learng much about them I was one of the first insist on a law for their protection. It akes me laugh when I read untrue articles bout 'chucks and sometimes I believe even ur authorities on wildlife are in the dark as their true habits. The facts I'm giving you ere I can prove, either by my own exeriences or by the experiences of anyone ught to hunt woodchucks.

I early made it my motto never to take n animal's life just for the sport of killing, nd always believed in making use of edible nimals. (Please note in the picture that amble sticks in their legs make them easier o carry after dressing.) Many times I've ugged 8 or 10 chucks for 2 miles or more o someone who enjoyed eating them.

When the groundhog went on the game nimal list many old hunters found a new port that differed from their usual type of unting. Woodchucks are dumb, in a crafty sort of way and have very keen eyesight nd a keen nose. Yet many times I have neaked up close enough that I could have picked them up were it not for the respect I have for their powerful jaws.

Now, I've found that the hunter can win the friendship of many farmers by shooting the groundhogs which are causing damage in his fields, but be careful when using a high powered rifle not to injure the farmers' livestock. As a woodchuck can carry more lead into its den than any animal its size shotguns with anything smaller than buckshot should be outlawed. It's really surprising how much killing they take. Out of the two thousand woodchucks I've killed with a .22 long rifle I didn't cripple over 5½, but I always aim for the head. If a woodchuck is sitting up I always try in some way to get a clear shot at his head, thus making either a clean kill or a complete miss.

There are many little things that a sportsman can do for the farmers which they gratefully appreciate and don't soon forget.



Always let the farmer know you intend hunting in his fields so he can tell you how many other hunters are there and likewise tell other hunters of your presence. This cuts down the danger resulting from too many hunters in one spot. Likewise, in the summer the farmer has many crops that he does not wish tramped down, and the real sportsman will be careful in going thru the fields. I have the first time yet to have difficulties with a farmer and I have many, many farmer friends.

To avoid shooting a human in mistake for a woodchuck, a hunter should never shoot until he is sure that the animal at which he is aiming is really a groundhog and not a man. It is better to pass up a couple shots than to take a chance.

The female hog usually has from 3 to 4 young in her den during hibernation, and the young are unusually small when born. The den is generally located along the edge of the woods in a grown up gutter, or along a dense fence row. However, groundhogs grow quickly and in about 4 or 5 weeks are out feeding on grass. It's very interesting to watch them play and to watch them scamper into the den when the mother gives her shrill warning whistle. During the third or fourth month the mother weens her young by leaving them and traveling to the closest good food, such as clover, hay, or soy beans and there she digs a temporary hole and fattens up for winter hibernation. Then, in the fall she'll travel to an established hibernation den or she'll dig a new one in the woods or along a grown up fence row.

Let me state here that the female digs most of the holes making from 2 to 3 each year and for safety's sake, each den has two or more outlets. These woodchuck holes are often used by other small animals, including the fox for I have witnessed foxes routing woodchucks from holes, even killing them and eating their young. On one occasion however I saw an old groundhog win the fight causing the fox to turn tail.

Woodchucks will eat most anything in the vegetable line. I've killed them 75 feet high in an acorn tree eating acorns, high in apple trees and have often shot them from corn stalks where they were eating an ear of corn.

Contrary to popular belief, they are good climbers and whenever possible they have a resting place on top of a fence post, on a tree limb over hanging the field or on a stump, where they will lay for hours. These can be noted by the dirt and mud left there by the chucks when they crawl up to sun themselves or to view the countryside.

Mating occurs in the fall, and beginning the last of September and continuing through October it is common for males to travel great distances. They can often be seen traveling across large fields and I've witnessed many bitter battles between males. On two occasions when I interferred in a battle by picking the one 'chuck up by his tail, the other groundhog furiously attacked me. That's how angry they get. So you can see that when often battling they simply ignore a human being. I've experienced this with buck deer also.

These are only a few highlights of the facts I've learned about woodchucks. They are interesting little animals and worthy of being classed as game.

I am now working at the U. S. Naval Station at Bainbridge, Maryland and I let at least 30 different sailors read your GAME NEWS each month and they enjoy it very much. These boys are from all over the United States.

OFFICIAL NOTICE

WHEREAS, The Pennsylvania Game Commission is of the opinion that for the better protection of game it is temporarily desirable and necessary to increase certain bounty rates, and to pay rewards or bounties to encourage the killing of certain destructive owls, all throughout the Commonwealth;

THEREFORE, BE IT RESOLVED, That the Pennsylvania Game Commission, acting under the powers and authority vested in it by the provisions of Article XI, Sections 1101 and 1102, of the Act of Assembly approved June 3, 1937, P. L. 1225, entitled, "An Act concerning game and other wild birds and wild animals; and amending, revising, consolidating, and changing the law relating thereto", by resolution adopted this 6th day of May, 1944, changes the rates of bounty heretofore paid for the killing of certain animals, and adds certain birds to the bounty list, all such rates to become effective July 15, 1944 and continue for a period of one year expiring July 15, 1945, inclusive, said rates of payment to be made for specified birds and animals killed in a wild state in the Commonwealth only during said period and when presented in the manner and under the conditions stipulated in the Act aforesaid, the new rates of payment to be as follows:

1. GRAY FOX—That the bounty on the gray fox be continued at $4.00 up to the end of the period indicated, with no bounty on the red fox.

2. WEASEL—That the bounty on the weasel be increased from 50c to $1.00, for all weasels killed during the period indicated.

3. GOSHAWK— That the bounty on the goshawk be continued at $2.00 for adults and $1.00 for fledglings, for all goshawks killed during the period indicated.

4. GREAT-HORNED OWL—That a bounty of $4.00 be paid for adult great-horned owls and $2.00 for fledglings, for all great-horned owls killed during the period indicated.

BE IT FURTHER RESOLVED, That the foregoing resolution shall be duly published in accordance with the provisions of Section 1102 of Article XI of the Act aforesaid in the June and July 1944 issues of the PENNSYLVANIA GAME NEWS, as required, and this change in the rate of bounties to be brought to the attention of the public through other available channels, the Executive Director of the Commission being hereby authorized and directed to certify the foregoing as and for the act of the Pennsylvania Game Commission.

SETH GORDON,
Executive Director.

Talk about a family affair. We are in receipt of a photograph, unfortunately too poor for reproduction, of five bucks killed in Forest County, near Cook Creek the first day of deer season in 1937, by the late Rev. A. E. Timmis and his four sons. The kill was made in an area of about 500 feet.

They Will Happen

Imagine if you can, the terror in the heart of a mother, upon hearing the deafening roar of a .45 calibre cartridge explode in an adjoining room, where her three year old son was alone with his toys.

Imagine also, the hollow stomach feeling of the child's father, as the mother told him of the thing that couldn't happen in his home and yet did happen.

Bill Houck is an expert rifleman and shooting instructor of exceptional ability. He has taught hundreds of men and women to shoot and handle firearms. He is one of the most safety minded, safety acting and safety teaching, shooting instructors known to the writer.

It is because of his strict safety qualities, plus the fact that it was his little son who fired the big cartridge, that the writer secured his permission to publish the story as a safety precaution to others.

Like his sportsman father, the lad is interested in guns and the proud owner of a common little pop gun. It seems that the old cork for the gun came among the missing when the boy insisted on shooting in the wrong direction too often. So the youthful marksman went in search of ammunition and from somewhere unknown to the parents, he dug out a loaded .45 cartridge. Hock, in his reconstruction of the shooting, believes some visitor may have lost it from a pocket while sitting on the davenport, and the boy's searching hand found it. The cartridge was placed in the barrel of the pop gun and slid back as far as the piston which creates pressure in any common pop gun. The trigger was then pulled and the piston struck the cartridge hard enough to explode it. In this case no one was injured, but it could just as well have resulted in tragedy.

The point we desire to bring to attention through this true incident is that no matter how safety minded we are, shooting accidents can and do happen. If loaded guns or ammunition are within reach of children, there exists an extreme safety hazard. Many a child has suffered the loss of a hand or an eye or other injury from hitting a loaded shell with a hammer. The child could hardly be blamed for playing with an article which his parents treated as harmless. Too often we read of some child killing a playmate with a gun that was not supposed to be loaded. When a little older, children should be taught all about guns, but while they are still children such playthings should be kept under lock and key.—Seth Myers, *Clarion Republican.*

"On April 17, I caught a Buzzard in a pole trap on State Game Lands No. 15. This is the first time since I have worked for the Commission that it has happened and I am wondering if any of the other field men have been catching them.

"On my way back from tending a live beaver trap April 27, I saw two weasels run into a bridge abutment. I stopped the car, stepped out with the .38 revolver, whistled like a quail, and one weasel immediately came out to see. He came, he saw, I conquered. The other one was not so curious."—Game Protector, Land Management, R. P. Schmid. Slippery Rock.

HAWKS IN FLIGHT

(Continued from page 30)

has a very definite assignment as to it duties.

"It is their job, as a whole, to remove th aged and infirm, the weak, the helpless, th crippled and diseased and by so doing pre vent epidemics and keep the breeding stoc vigorous and healthy. This is absolutel essential if our wildlife is to survive. Ther is no other possible way that this job ca be done. If any of these predators ar reduced below the needs in a certain are there is a shortage of 'manpower' there, an some of the work is necessarily left undone If a pair of hawks or owls are killed, i may be years before another pair will estab lish a home in that locality and take over

"Our Game Commission can raise ring necked pheasants at a game farm and stock sections where they are scarce; and it can trap both rabbits and ringnecks in sections where there are too many and transfer them to places where there are too few, but it cannot do this with birds of prey.

"While it might be possible to trap them it certainly would not be feasible, even if it were possible, to either propagate or transport them. Therefore, once they are gone they are gone, and no one can replace them."

HUNTERS YOU KNOW

IVY IKE

Emery Boysen
Scoffed at the poison
of the three-leaf ivy vine;
To prove he was tough,
He rolled in the stuff,
Oh, he had himself a time!

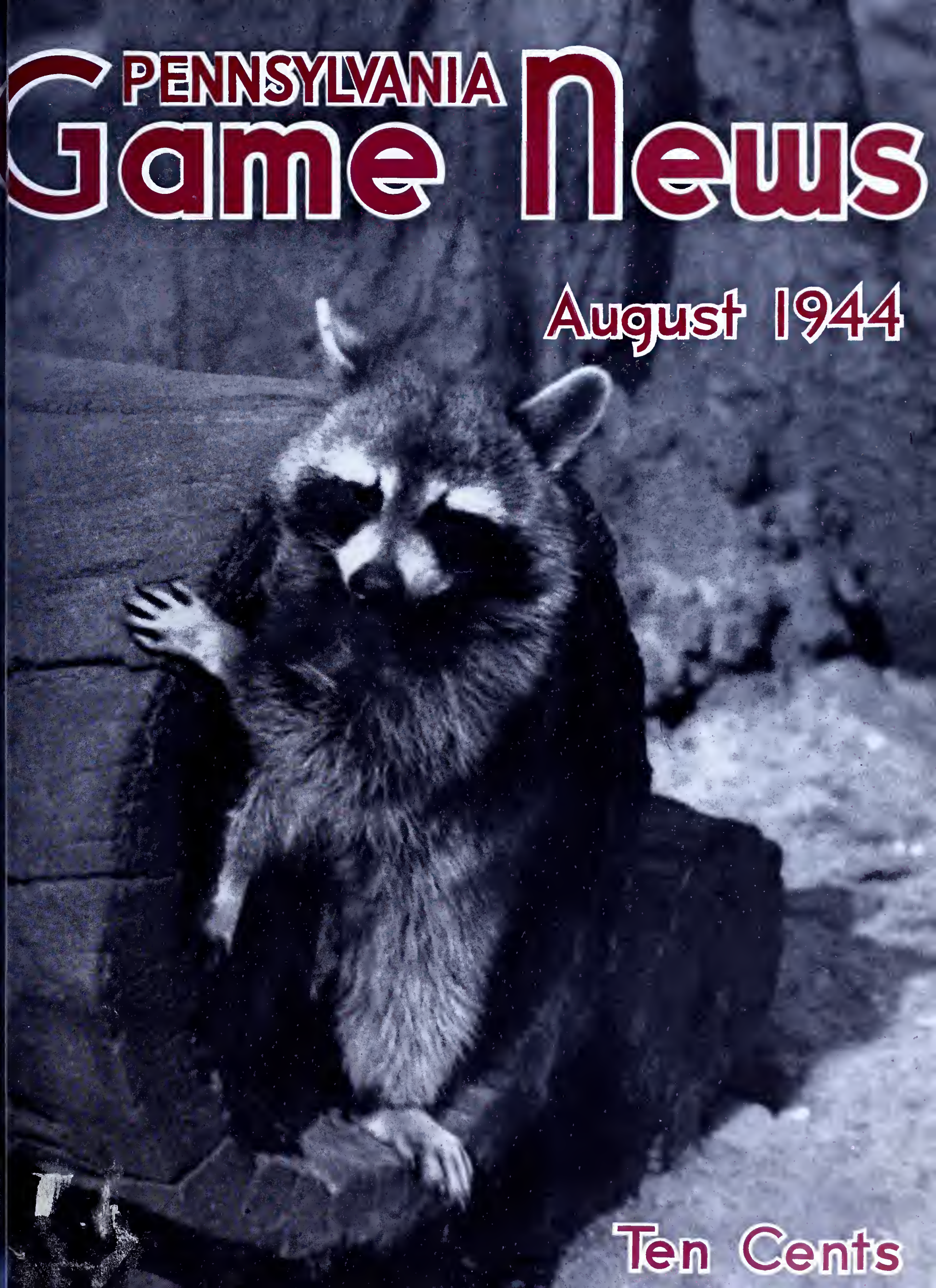
He shortly discovered
He was thoroughly covered,
And the itch was enough to convince.
He wasn't immune;
He changed his tune,
And he hasn't been in the woods since.

CARSTEN AHRENS.



PENNSYLVANIA Game News

August 1944



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VOL. XV, NO. 5

EDITORIAL

August, 1944

IN THIS ISSUE

★

Managing the Waterfowl
By Dr. Ira N. Gabrielson

★

Poisonous Snakes—A Minor Hazard to Soldiers
By M. Graham Netting

★

Why Not?
By Helen Merritts

★

Nature's Medicine Chest
By N. R. Casillo

★

Minks
By S. V. Sedlak

★

Friends of the Land

★

More About Junior Clubs

★

With Those in The Service

★

Conservation vs. Sport

★

Cover photo by Lindsay M. Griffin

★

Flood Control vs. Wildlife

Here is an opportunity for every reader of the GAME NEWS to go to bat for conservation. There is a bill in Congress known as H. R. 4485 "Authorizing the Construction of Certain Public Works on Rivers and Harbors for Flood Control and for other Purposes." Naturally every serious-minded individual is in sympathy with sound flood control programs. We all want them. But we cannot sit idly by and permit legislation to go through which ignores the very things for which we have all been campaigning during the past decade.

These things summed up in recommended amendments to the Bill, which will be up for consideration when Congress reconvenes after Labor Day, are:

1. That, a provision be inserted to require studies by biological experts of the U. S. Fish and Wildlife Service of all waters to be impounded for flood purposes so that such impoundments may be utilized to the best advantage for fish and game.

2. That on all such impoundments the rights of the states with reference to the control of resident wildlife populations, the fixing of legislation or regulations governing the taking thereof, and the issuing of hunting and fishing licenses, shall be specifically recognized.

In the first place, studies by biological experts as part of any flood control measure are absolutely essential to the public welfare because of other natural resources involved; secondly, states rights as to the management and control of such resources on projects developed within their boundries, including the regulation of seasons and bag limits for fish and wildlife and the enforcement thereof, must be recognized as a sovereign one. Federal control of such rights never have been and never will be to the best interests of conservation or the public welfare, and would defeat and destroy state conservation programs.

For these reasons, therefore, it behooves you as an intelligent, farseeing conservationist to write or telegraph your United States Senators and your Congressmen at once urging them to oppose the measure unless the amendments hereinbefore mentioned, which have already been submitted at the instance of all State and National Conservation Agencies, are clearly and unmistakably included therein.

Pennsylvania has always done its share to defend sound conservation principles and to help mould conservation policies. In this case Pennsylvanians can do their bit again. Failure to act may mean further encroachment and interference in the management of our resident wildlife resources.



Concentration of Canvasbacks on Lake Merritt, California.

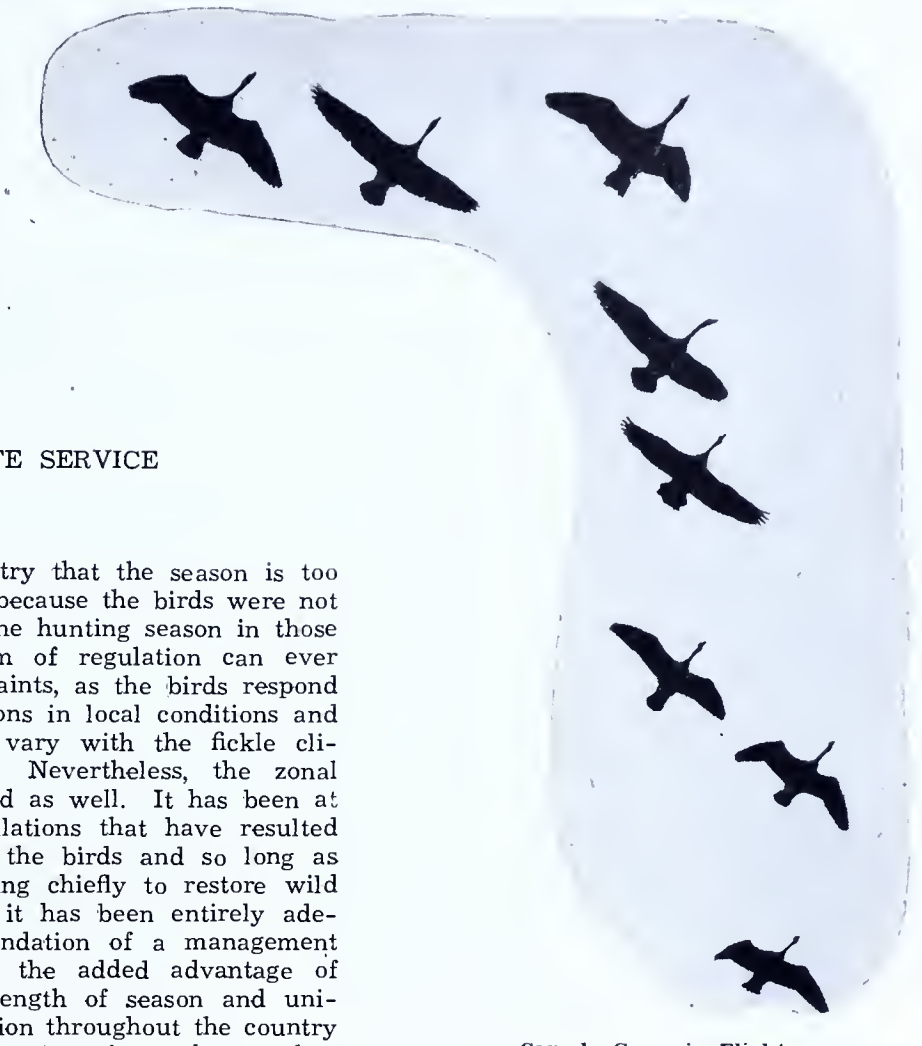


Close up of Snow Geese.

Managing The Waterfowl

*By Dr. Ira N. Gabrielson**

PHOTOS COURTESY U. S. FISH AND WILDLIFE SERVICE



Canada Geese in Flight.

THERE are two fundamental divisions of the continental waterfowl management program. These are: (1) restoration, maintenance, and management of marsh lands to maintain suitable environment, and (2) control by means of hunting regulations and their enforcement of the numbers of birds taken in such a manner as to insure the preservation of an adequate breeding stock. It is not proposed to discuss these two general phases. The management of lands will be treated in various papers to follow as will also the problem of legal protection—that is, the making and enforcing of regulations.

It seems fitting, however, to discuss briefly the basic concept on which national and international waterfowl regulations have been made. Up to the present time, zones corresponding roughly to temperature belts and the seasons of flight across the United States have been basic in the making of regulations. There have been good reasons for this practice. In the first place the zoning employed does more or less correspond to the temperature belts and, therefore, closely to the normal movements of the birds in migration. It does not correspond, nor will any other system ever correspond, to the vagaries of local water, temperature, and food conditions.

Each year outcries arise from some sections of the country that the season is too early or too late because the birds were not plentiful during the hunting season in those areas. No system of regulation can ever avoid such complaints, as the birds respond rapidly to variations in local conditions and their movements vary with the fickle climatic conditions. Nevertheless, the zonal concept has served as well. It has been at the basis of regulations that have resulted in building back the birds and so long as we were attempting chiefly to restore wild fowl populations, it has been entirely adequate as the foundation of a management program. It has the added advantage of providing equal length of season and uniformity of regulation throughout the country—very important points from the psychological and public relations aspect.

Within the next two years, unless some catastrophe intervenes, the waterfowl will reach approximately the maximum number that can be supported by the available wintering grounds. It is, therefore, timely that we examine the basis of the regulations and discuss the possibility of using some other concepts, as the primary problem changes from restoration to management. I am not at all sure that any other concept will be better than the one under which we have been operating. There is, however, another possibility that has been discussed informally among members of the Fish and Wildlife Service for several years, looking ahead to the time when we might have to meet changed conditions.

As the wild fowl populations grow, new problems arise, especially as to regulation of the numbers by management. As the populations grow, so do the number and extent of the areas in which excessive concentrations may regularly or sporadically occur. When these populations increase to

* From a paper delivered at the Ninth N.A. Wildlife Conference in Chicago, April, 1944.



Snow Geese



Flock of Mallards on Lower Souris Refuge.

the degree that their requirements for food exceed the natural supply, greater damage to farm crops may result, and emergency control measures be necessitated. In considering these and other factors, we have discussed many times the possibility of making the regulations correspond with the north and south lying flyways instead of with east and west zones across the country. We have reached no definite conclusions but I can say that, with the present staff of both our own organization and of the State game departments with which we must cooperate, so greatly curtailed by war's necessities, we have no intention of attempting to put a changed basis for the seasons into effect this year. To discuss the matter, however, can do no harm. Regulation by flyways would have evident advantages and equally obvious disadvantages, and it might be well to point them out.

As a first advantage, it would permit a type of regulation more carefully adjusted to a natural division of the waterfowl population than is possible under the zonal concept. Evidence accumulating for many years indicates that the populations of the four major flyways are well marked entities, and that the great majority of the birds consistently keep to their own flyway. Hence, it would seem in agreement with a fundamental biological factor to adjust the regulations to the flyway populations. I can perhaps best illustrate this concept by showing what could have been done under it the past season.

Populations were high on the Pacific Coast and in the Mississippi Valley in relation to food resources, while they were not out of proportion on the East Coast, and not particularly so in the Central Flyway. Under a flyway concept, the Pacific Coast States thus could well have had greater shooting privileges than the East Coast, and the Mississippi Valley more than the Central Flyway. It is entirely probable under a flyway system of regulations that the States depending upon the population of birds that breeds in the Prairie States and in the Prairie Provinces of Canada would have more widely fluctuating regulations than would States visited by other flights. For example, New England and the Pacific Northwest, which get comparatively few of the birds that breed in the Prairie Provinces, would have relatively less shooting in years when as a result of good breeding conditions in the Prairie Provinces, the Central and Mississippi flyways would have waterfowl in great numbers, but would have relatively better shooting in years when conditions were bad in those areas. States dependent for their shooting largely upon such birds as the Canvasback, Redhead, Scaup, Gadwall, Blue-winged Teal, and other species of the northern plains breeding area would have drastically curtailed seasons in a series of dry years but unusually liberal regulations in periods of adequate rainfall. In other words, with the flyway type of management, it would be possible to make the regulations correspond more closely with the capacity of the wild fowl population to tolerate hunting.

A second advantage would be that the regulations could be used to direct gun pressure against species in best condition to stand it. The regulations could be more responsive to variations in wild fowl numbers and thus might help to correct some of the inequalities in populations that are bothering us at the present time.

The widely distributed Mallard, Pintail, and Widgeon have increased more rapidly both in actual numbers and on a percentage basis than have species of less extensive nesting range. It is quite probable that any general conservation program will always benefit the former groups more than it will the latter. Those dispersed over much larger nesting areas are not affected so badly by adverse local conditions that might seriously deplete the more localized birds. The mere fact that they are spread out over such a large area also makes it possible that in most years the average number of young will be greater than that of the broods produced in more restricted nesting areas.

As to disadvantage of a flyway system of regulations, the mere fact that regulations probably would fluctuate to a greater degree than those under the present concept is bad from an enforcement standpoint. The ideal in that respect would be regulations that would remain the same from year to year so that the public would learn and remember them. It is difficult to get notice of even limited changes in regulatory measures to all persons who should know what the regulations are and why they exist. To make such a flexible system of flyway regulations work would require a great program of publicity each year, both by the Fish and Wildlife Service and by the State conser-

vation departments. Another disadvantage would be that the shooting seasons, bag limits, and other restrictions would not be uniform throughout the country. This would make it difficult for those who hunt in various sections to be sure about the shooting regulations as they traveled about the country. This would not be a serious problem, however, for those who are able to do such traveling usually would be able also to learn the local differences in regulations and adjust their activities accordingly. It could not be classed as a major disadvantage.

Another disadvantage which would be serious from the standpoint of psychology and public relations would arise from the differences in shooting regulations that would be required for different parts of the country. However, there would be no real reason for this objection except for interstate jealousy—I can say frankly, jealousy particularly on the part of State officials—which increases the difficulties of administration whenever regulations vary. I speak from experience on this phase of the subject because we have tried comparable regulations in a small way for a few species. We found that the States which received the more liberal shooting regulations were, of course, quite satisfied, but we received a chorus of charges of discrimination from States in which the regulations were less liberal. Almost invariably the strongest voices in the chorus were those of the conservation departments.

They should be able to take a broader point of view for it is common to have more liberal seasons and bag limits in some parts of a State than in others in accordance with variations in the game supply. In fact the very reason for the existence of flexible regulations is that such differences can be arranged when needed. The same philosophy should apply to migatory birds whenever we are able to put their management on a practical basis. To illustrate what I mean, may I say that the occurrence of crop damage by waterfowl in various parts of the country, particularly in California and Colorado, is being seized upon by certain groups in the eastern States as the basis of demands for more liberal shooting regulations on the East Coast. I can think of nothing more foolish than for us to yield to this type of propaganda. If we permitted every duck that uses the Atlantic Flyway to be killed, it would have little or no effect upon the crop damage situation in the western States.

If a system of regulations by flyways were placed into effect, public sentiment would have to adjust itself to the fact that some other States undoubtedly would have, at times, more liberal shooting privileges than others. Thus, acceptance of regulations on a flyway basis would require a change in attitude and in thinking on the part of both sportsmen and State officials.

Regulations varying according to the flyways and their fluctuating wild fowl populations would be equally difficult for the general public to understand after it has become accustomed to thinking of national waterfowl regulations as uniform throughout the country. While not entirely uniform, they have had a high degree of uniformity that has definite advantages in enforcement. Moreover, they have proved their value in the building up of populations. Yet the time may come when that uniformity and those advantages may well be sacrificed for the sake of new objectives. I am not saying that the zone system will become outmoded, but we may be forced to change our concepts as wild fowl populations increase.

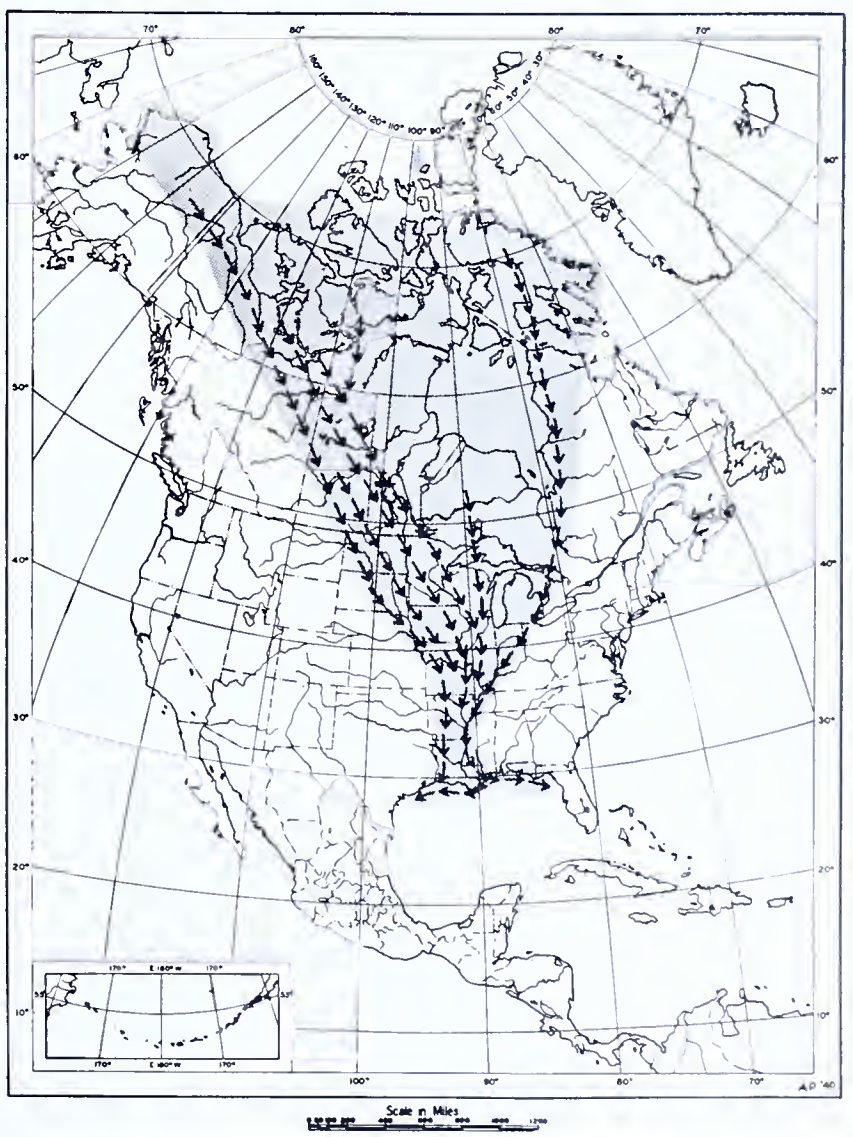
Experience with the "buck law" in deer management shows that we cannot cling forever, under changing circumstances, even to measures that seem "tried and true." The "buck law" provided good conservation and good management in States where populations were low and where the principal problem was to rebuild the deer herds. It is still valuable where those conditions exist, but it is neither good conservation nor good management when deer herds have to be handled on a maintenance rather than on a restoration basis. Taking effective steps to reduce populations, especially locally, has become necessary to the welfare of the animals themselves.

There is a third obvious disadvantage in the use of the flyway concept as a basis for waterfowl hunting regulations and that is the mechanical and administrative difficulty of so defining the flyways that more trouble will not be caused than by the zone system now in use. Those who have had experience in the enforcement of migratory bird laws will appreciate keenly the magnitude of this problem and the multitude of details that would have to be worked out before

(Continued on Page 21)



Atlantic Flyway



Mississippi Flyway



Timber Rattlesnake.



Fangs of a poisonous snake.



Copperhead.

Poisonous Snakes—

A Minor Hazard to Soldiers

QUIZ-PROGRAM experts face carefully selected questions once a week; herpetologists, by no means in the same income tax bracket, face a continuous barrage of queries. At present many herpetologists are in the armed services of their countries, others are engaged in war work of one kind or another, and some few are carrying on herpetological work in connection with the war effort (the collection of snake venoms for medical use, for example). At the same time, millions of young men have been moved to areas where they are encountering, only occasionally of course, strange and bizarre serpents. Soldiers are naturally interested in knowing the names and the poisonous qualities of these snakes, so the mail of every herpetologist still working at his trade contains many such inquiries.

Detailed discussion of the distribution or identification of the snakes of the world is beyond the scope of the present paper. It should be pointed out, however, that there is no one recognition mark by which the layman can distinguish a poisonous from a harmless snake. Furthermore, certain venomous foreign species appear superficially similar to some of our innocuous forms.

Some 2400 kinds of snakes are scattered over the world, occurring in virtually every area, climatically suitable, except Ireland, New Zealand, and many smaller islands. Of this number, less than ten per cent are large enough, venomous enough, or common enough to present any real hazard to man. In each region most of the fatalities from snakes are attributable to only a few species, so it is the part of wisdom to learn to identify the villains of your locale. An attractively illustrated booklet, which will enable a soldier to recognize the more frequently observed and dangerous foreign species, is Doris M. Cochran's "Poisonous Reptiles of the World: a Wartime Handbook," obtainable from the Smithsonian Institution, Washington, D. C.

The snake-bite problem is actually divisible by three: (1) persuading people that poisonous snakes are only a minor menace in most parts of the world, (2) suggesting means of avoiding snake-bite accidents in areas where venomous reptiles are prevalent, and (3) outlining first-aid measures to be followed "until the doctor comes."

Snake Hysteria

There can be no doubt that poisonous snakes are feared out of all proportion to the actual harm which they do. In the course of my herpetological studies I cannot claim to have made any profound or startling discoveries, but I believe I fathered the assertion that more North Americans suffer fatal accidents in bath-tubs than succumb to the bites of poisonous snakes. This statement has been widely quoted and has come back to me, in boomerang fashion, from many sources. On one occasion I tried to relieve the apprehension of a questioner, with whom I was talking on the telephone, by remarking that bath-tubs were more dangerous than poisonous snakes, and that if he could approach his morning shower with equanimity he should not allow fear of a snake-bite accident to spoil his pleasure in the out-of-doors. The man astonished me by replying that he knew how dangerous bath-tubs were because he manufactured them, and that if I would invent a non-skid enamel I could make a fortune in a much easier and pleasanter fashion than by studying snakes! In time of war, of course, this comparison is less apt, for where many of our soldiers are fighting they are more liable to encounter poisonous snakes than bath-tubs. Careful estimates indicate that 160 persons per annum *may* have died of snake poisoning in the United States several decades ago, when even physicians resorted to the new generally discredited potassium permanganate treatment. In recent years, widespread use of the incision and suction technique, stemming from the pioneer work of Dr. Dudley Jackson of San Antonio, Texas, and the manufacture of antivenins (serums) by the Mulford Biological Laboratories of Sharpe and Dohme, have materially reduced the number of fatalities. Accurate statistics are not available, but my belief is that fifty deaths per annum would be a high figure. Certainly for each death caused by a snake, hundreds of our citizens die in automobile accidents, yet I know women—and some men—who scarcely stir from the picnic table for fear of meeting a snake, yet ride nonchalantly home with a driver who would give many a snake hunter the shivers.

Altogether too many people have been frightened by the oft-quoted, but I think exaggerated, estimate of 20,000 deaths from snake-bites each year in India; Java, with a greater population density and many of the same species of poisonous snakes, has only a small number of deaths annually. Whatever the correct figure for India, it should be emphasized that religious beliefs which restrain bare-legged natives from killing cobras that live under houses are largely responsible. Well-shod white residents, with no such aversion to exterminating the local fauna, suffer relatively few snake-bites. It is said that more white men are killed by lightning than by snakes in some parts of the rainy tropics.

I do not believe most of the stories that I have heard about crawling soldiers being startled by a face-to-face encounter with a snake, and rearing up—the soldier in this instance, not the snake—in the path of bullets used in training exercises. One such accident may have occurred, but the tale is now being repeated from so many camps that I view it with increasing skepticism. There can be no doubt, however, that many more men in training suffer from snake frights than from snake bites. A soldier writes of maneuvers in a southern camp as follows: "While attacking a hill, one infantryman may strike the ground in his

ush advance and fall near a snake. He houts bloody murder as the "coachwhip" (a armless snake) strikes off at a good pace n the opposite direction. The riflemen stop dvancing and everything is spoiled." The eported attitude of at least one combat en-ineer outfit, although it contains elements f exaggeration, could do much to improve norale. This group was located in an area n the central United States where copper-eads are especially numerous, and one of he soldiers reported that the training was so xhausting that the men solicited bites so hey might have fifteen minutes rest while eing treated! Certainly no tough combat ngineer should die from a copperhead bite, or during a two-year period, some time ago, 08 much less rugged men, women and chil-lred were bitten by copperheads, without a atality.

Every herpetologist, and every other bi-logist for that matter, should do his utmost o convince fighting men that, although other nimals may be more spectacular, the nalaria mosquito is the most dangerous of ll animals; it hospitalizes more men than ll the snakes, scorpions, centipedes, tarantu-as, and other known noxious creatures.

How to Avoid Being Bitten

Once a person has been convinced that oisonous snakes constitute only a slight azard—but nonetheless one which the rudent should take into consideration—it is easible to consider the ways and means of essening the already slight danger of snake-ite.

Snake-bites may be avoided in one of two ways: either by wearing clothing so tough r so thick that fangs cannot pierce to the kin, or by keeping so alert that dangerous nakes are seen and avoided. In pre-war days some firms offered specially tailored breeches, which consisted of a layer of cloth on either side of pliable mesh screen. These snake-proof pants were probably quite effec-tive, but I have yet to encounter a snake collector who could afford a pair. There are devices, however,. whereby ordinary clothng can be made more effective in les-sening the hazard of snake-bite. Only the

By M. Graham Netting

Curator of Herpetology
Carnegie Museum

largest poisonous snakes, such as the dia-mond-backed rattlesnake, have fangs of suffi-cient length to penetrate stout boots. Heavy rubber boots are practically snake proof, but are not suitable for general wear. Many collectors in the tropics prefer leather puttees to laced boots for reasons of both coolness and protection. Wearing trousers outside the boot, rather than tucked in, offers an addi-tional measure of safety. Even ordinary trousers have been sufficient to protect many a wearer against the bites of short-fanged serpents. Some track walkers along copper-head-infested rights-of-way paint their over-alls, from knee down, with heavy bridge paint, thus producing a stiff, snake-proof casing.

Pre-war statistics indicated that approxi-mately sixty per cent of all bites were on the feet or legs, about forty per cent on the hands or arms, and one per cent, or less, on the trunk or head. On tropical plantations, where the cutting of underbrush used to re-sult in many snake-induced casualties, the incidence of bites has been decreased by re-quiring workmen to carry a short stick in the left hand. This stick is used to bend back the vegetation as it is cut off with the machete held in the right hand.

Snakes become overheated rapidly on hot ground; they prefer snoozing in the shade to crawling in the sunlight. Fifteen minutes on intensely heated desert sand will "cook" a rattlesnake. Venomous snakes, especially, prowl at night—like G. I. "wolves." I have known "crackers" who went barefoot by day in good snake country, but who never ven-tured forth after dark without footwear. Snakes are so easily frightened by footsteps, transmitted to them as ground vibrations, that the passage of a squad of soldiers will cause them to seek places of refuge. Under actual battle conditions, I suspect, but cannot prove, that every terrestrial snake is as far underground as it can go.

Poisonous snakes may concentrate around an established camp because soldiers drop crumbs, mice flock. to the feast, and the rodent-eating snakes follow their food sup-ply. It is highly important, therefore, that any man routed out of his hammock or blankets at night take time to pull on his boots—first turning them upside down to shake out scorpions, of course.

What to Do If Bitten

The best advice I can offer to any victim of snake poisoning is to remain firmly con-vinced that he will survive, to apply first aid if no doctor is at hand, and get to a physician as soon as he can find someone to transport him. Only a physician is qualified to handle emergencies when they arise. Under no cir-cumstances, however, should the soldier be so anxious to place himself under a doctor's (and nurse's) care that he starts a gallop for the nearest first-aid station. Such un-necessary exertion may mean the difference between an uneventful recovery and a white cross.

There are several good suction-type first-aid kits on the market, and one of these, at least, has been widely distributed to soldiers. The only real drawback to these kits is that, small and compact though they are, they may not always be in the pocket when needed. I keep on hand a supply of Gem razor blades, in their individual wrappers, which have been dipped in hot paraffin to protect them from rusting. I issue blades and brief instructions to soldiers who visit my laboratory. in the hope that such tiny kits may be carried on the person when larger *and better* kits are left behind. The accompanying directions are as follows: "The smallest kit but *not* the best. Adequate for emergency use only. Apt to be at hand when needed if placed in pocket Bible or billfold. In case of poisonous snake bite *(usually 2 tiny round punctures)*, cut deep-

(Continued on Page 21)

Apply tourniquet to reduce flow of venous blood.



Cut wound deeply with razor blade in insure profuse bleeding.





Lined up for a flight shot.

Why Not?

AS OCTOBER frosts tinge the leaves, and the air takes on that tangy, peppy fall flavor, the men begin much hustle and bustle with dogs and guns. These fellows are going hunting and their lingo will be unintelligible to all except other Nimrods until the last shot is fired a month or two later. Are we women missing something? There must be something to hunting if it can so completely captivate the fellows.

Why shouldn't women join in the fun of tramping through the fields and woods with a gun tucked snugly under an arm? The English women discovered long ago the thrill of grouse shooting on the Scotch heaths and they, please notice, were handicapped far more by convention than we are. In the United States we women are known as a nation of sportswomen because we enjoy getting our noses sunburned and our muscles bulged out, so long as it is in the cause of good healthy exercise. More than that, any woman in our country can hunt if she wishes to, whether she's a Main Line Deb or a window washer in a New York apartment house. That privilege is one of our heritages, the freedom to roam through the woods and fields of our countryside and partake in the sport of shooting game. In Europe they are not so fortunate, as hunting is a sport reserved for the most part only for the upper classes, and the game belongs to the individual on whose land it roams, instead of to the State as it does here.

Hunting formerly was regarded as strictly a man's job, and job it was in our early history, because upon the father's hunting ability depended whether the family was properly fed and clothed. Then with the advance of civilization, hunting became a sport, and agriculture took over the task of providing food. Still, the women took but little part in the sport except to clean and cook the game after it was bagged. But as we shortened our skirts, and began to look around for a more thrilling sport than croquet, hunting began to take on glamour in the eyes of some women, especially those [women] whose husbands or sweethearts hunted. The southern woman enjoyed fox hunting on horseback long before her northern sisters took up the sport. Thus, little by little women discovered the fun of hunting.

Now that our country is at war and women are taking a more important part than ever in the life of our country, they will need a form of recreation which offers a complete change from the daily routine. Also, many of us are working in factories which means that we need fresh air and sunshine as well as recreation. Hunting offers these body builders in addition to the thrills of the sport.

We owe it to ourselves and our country to be in top condition in these times when we must all work harder and longer. We women are taking over men's places at the machine so that they can be released for the armed services. If we can take over male jobs, we can rightfully enter into male sports. There is nothing better to blow machine dust out of lungs and cobwebs out of brains than a tramp through the fields and woods, exercising muscles which are neglected in the daily routine. The tramp can be made far more fascinating and exciting if one is kept on the alert by watching for the flash of a pheasant, the bobbing tail of a rabbit or the rise of a trout.

However, there are, in this country, a large group who feel that hunting animals with a gun is cruel and inhuman and that the animal hasn't a chance. This is true in the case of the hunter who shoots cottontails while they are crouched in their "squats," or shoots birds on the ground instead of flushing them. Fortunately, there aren't



Photo by Leo A. Luttringer, Jr.

Field trials challenge the girls and their dogs.

By Helen Merritts

The Author, an Ardent Nimrod and Waltonian, Urges Other Girls to Get Into the Wide Open Spaces

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Photo by Delbert Batcheler.
The author believes in practicing what she preaches.

nany killers of this breed. If one is truly ı sportsman and gives the game a fair :hance, hunting is a sport, even though he ıses a gun. Animals employ many and ⁄aried tricks to elude the hunter and it akes a smart person to catch up with many ypes of game. Thus, there is a definite art ınd skill to hunting. If you don't believe it, ısk the grouse or woodcock hunter, or better :till, if you are a novice, try shooting either)f these wary birds. That "murderous shot-gun" is really harmless in the hands of a)eginner as far as these birds are con-:erned, for they fly swiftly away, completely ınharmed even though you were sure you ıad a direct lead on them. It takes practice n the hunting field to learn to hit these 'ellows. Duck hunting is another phase of :he sport that has a lot more to it than just going out to a lake, banging away for a :ouple of hours, then returning with a brace)f ducks for dinner. Some ducks attain a speed of as high as 70 miles per hour and t's only the skillful hunter who can down ı pair for his dinner.

But, girls, if you can't bring yourself to ıunting with a noisy gun, why not try the)ow and arrow? This kind of hunting is)ecoming increasingly popular in the United States, in fact, some states, like Pennsylvania, have set aside hunting preserves for the ex-:lusive use of the archers. This kind of sport is also much in keeping with the am-munition shortage now existing in all sec-tions of the country. To date, bows and arrows are not scarce or rationed articles. We women formerly felt that archery, like croquet, was a very lady-like game and some of us became proficient at hitting the bull's-eye. Now let's put our skill to a more practical test than hitting the gold of a stationary target in an open field. If you can become good enough to hit a rabbit on the run or better still, a pheasant on the wing, the name "sportswoman" is fully deserved. Here is a type of hunting which should appeal to many of you. It's fun as well as good sport.

However, for those of you who don't want to kill game there is a third type of hunting reserved exclusively for you. There are hosts of enthusiastic hunters who shoot game with a camera. Yet, hunting with a camera is a fine sport in itself. It takes skill not only to take a good picture mechanically, but also to track down the game which you want to photograph. Trying to outsmart your subject for a picture or trying to make him "pose" for just a second until you snap his portrait is no easy task. A suspicious pheasant is much more difficult to photograph in a natural pose than the neighbor's baby. This type of hunting knows no closed season, no bag limits nor any protected species. It is a sport which you can follow all the year round and the only requirements are a camera and your own personal whims for guidance. The whole out-of-doors is literally yours for the taking.

Then, again, maybe you are one of those persons who just likes to get out into the wild, open places without being bothered by a lot of paraphernalia. That in itself is a noble idea, but you'd find the excursion to be more fun if you were interested in trying to see how the wildlife half of the world lives. All you have to do to find out the intimate secrets of a rabbit's life is to keep your eyes wide open and be a careful observer. Of course, a pair of binoculars brings things a little closer but since our men need those to spot tin fish, we can do without them for the duration. There is no prettier picture in nature than a doe deer, alert and tense, standing guard over a small spotted fawn which is a little uncertain just how its legs should operate. A buck, standing in a clearing, head thrown high and velvet covered antlers silhouetted against a setting sun is a picture which no artist can duplicate. Even that odoriferous creature, the skunk, is very amusing to watch as it minces across a road followed by several little ones, all with their tails high in the air waving a danger signal to the unwary. The 'possum solves the transportation problem very easily by carrying her young on her back, with



Photo by Harold J. Stahle.
Such a view as this is the reward for a hike.

(Continued on Page 20)



The digestive organs are given a boost by a mild drug in the bloodroot.

Nature's Medicine Chest

(Photos by the author)

ON A fine spring day not many years ago I was called from some absorbing pastime by the insistent ringing of the telephone.

After several rings I slowly went to the instrument, my mind still occupied by what I had been doing.

"Yes," I absently replied into the transmitter.

The voice that blasted my eardrum was excitedly raucous. The first rumble of sound was unintelligible. "Huh?" I came back, snapping out of my stupor.

"This is Dr. Burchtree," the voice tried again. "Are you acquainted with a plant commonly known as sweet cicely?"

"Yes," I admitted.

"Well," the physician continued, "we have a couple of very sick boys here at the hospital who picked up something else in its place. Have you any idea with what sweet cicely might be confused?"

"Yes, at this time of the year it might be easily confused with water hemlock." And, of course, I thought of how frequently boys ate the deadly hemlock for the sweet and pleasantly aromatic sweet-cicely.

"What's the active poison in water hemlock?"

"Hold the line," I almost yelled as I grabbed up the book that I had been per using only a few moments before.



The rare fringed gentian once supplied a mild tonic drug.

In an instant I had the proper page. Ther it was, *Spotted cowbane, musquash roo water hemlock, poison hemlock, beaver poison.* There followed considerable descrip tive material, then, *This hemlock yields a alkaloid poison called CONINE, a drug wel known to the ancients, and which furnishe the death draught of Socrates.*

I conveyed the drug's name to the waitin physician. Next morning the boys were u and about.

The above incident was sufficient incen tive for me to pursue the subject still further The mysterious ingredients of plants togethe with their medicinal properties is a subjec calculated to be interesting to every out doorsman.

How did man learn so much about the curative values of so many botanicals? Wa it accomplished the hard way i. e., by tria and error or by orderly experimentation? Let us see.

Back in the time of witches and thei bubbling cauldrons the curative values o plants were indicated by the particular shape of one or more of its parts. Thus, if the leaves were liver-shaped like those of the hepatica or liver-leaf, naturally they were used in

By N. R. Casillo

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ailments of the liver. The bloody juice of the bloodroot garishly indicated its ability in the treatment of blood ailments.

Incidentally, all this was not strictly confined to the plant kingdom. In those days only the most stupid dolt was unaware of the fact that eating the lungs of a fox made the diner an enduring runner and that the courage of a lion was imparted by regularly partaking of the heart of the king of beasts.

Modern methods of chemical analysis have practically fixed the chemical ingredients of most of the medicinal plants. Laboratory technique as practiced on laboratory animals has all but eliminated the risk that a human might sustain in trying out a new medicinal mixture. And, it should be added, that time tested plants are slowly passing out of the picture because of the wonders wrought by new synthetic, inorganic compounds.

For obvious reasons the average person is interested in the makeup of some of our most commonly used medicinal mixtures together with the source of their ingredients. Let us review a few of the plants which have stood the test of time and still play a part in modern medicine.

The bark of the sycamore as well as that of the well-known witch-hazel have astringent qualities. Doubly or triply distilled, they comprise the chief ingredients of many commercial astringent and tonic lotions used both externally and internally.

Due to the fact that witch-hazel does not bloom until October and November, and the hard seeds not maturing until the following year, it can be well considered the first plant of the growing season to bloom. Because it was said to have supernatural powers when its forked branches were used as divining rods by treasure hunters, the shrub whose seed pod closely resembles that of the common hazel-nut had the word witch affixed to it.

Oil derived from the leaves of the well-known wintergreen or mountain tea is used in many medicinal lotions. A small portion of the oil mixed with witch-hazel lotion has rubbed numerous herds of charley horses from the muscles of many a football player. Much of the oil of "wintergreen" used today is distilled from the twigs of the black birch.

The common pokeweed is a triple threat what with its rankly poisonous root, slightly poisonous berries, and unwholesome mature leaves. Yes, this is the same plant whose young shoots are eagerly sought as spring greens shortly after they have poked their way out of the ground. I have eaten them but cannot say that I cared much for the puckery sensation they imparted to the throat and mouth. The drug derived from the roots is put in medicines used in treating skin and blood diseases as well as to relieve pain and inflammation.

Both the seeds and root of the lowly, ill-scented skunk cabbage yield a drug that is both stimulating and soothing in its effects. Because of these wholly contradictory properties the active ingredient is much used in patents prescribed for whooping cough, asthma, and various respiratory irritations.

White pine and balsam fir lend their curative qualities to mixtures designed to soothe bronchial and throat irritations. In some cases the pitch of both of these trees is emulsified in the mixtures of which they are a part. More often, however, the essential oils of each is the part used.

Wild black cherry bark produces a tincture used in many commercial cough syrups. And it works, too as most every one can attest.

The leaves of mountain laurel produce a drug that is sometimes used in sedatives. It is said that a strong decoction made from the leaves was used by the Indians for committing suicide.

Because of its heart-shaped leaves bloodroot was used by the Indians in ailments of



The roots of American hellebore are ground into an efficient insecticide.



Leaves of mountain laurel contain a sedative.



Witch-hazel blossoms appear in November.



Dogwood contains the drug cornine, a poor substitute for quinine. The bark is the officinal part.

the heart. Homeopathics now use it to stimulate the digestive organs. It might be added that the red juice exuded by the stem and roots was used by the Indians as war paint.

Dogwood contains a formidable array of chemical agents including lignum, potassium, iron, tannic and gallic acids as well as various gums and oils. However, the active drug is cornine and is used occasionally as a substitute for quinine.

Podophyllin is the drug found in the may-apple or mandrake. The drug acts on the liver and is far superior to the many inorganic substances now used for the same purpose.

One of the important ingredients of many patent tonics is achilleine obtained from the very plentiful yarrow.

The highly medicinal qualities of the European pennyroyal is equalled by those of the American or mock pennyroyal. Besides the stimulative action it imparts to many medicines, the oil is also the *piece de resistance* in many insect repellents.

American hellebore a common plant often associated in the same situations with skunk cabbage contains a poison used as the chief ingredient in an insecticide powder.

From the bark of the common quaking aspen are derived both salicin and populin used by veterinaries for expelling worms in animals.

Berberina the active ingredient in the common wild barberry is used in both tonics and laxatives. In high concentrations it will act as a purgative.

The cohosh, so frequently encountered along forest trails in this state contains a weak narcotic known as macrotin. Most every woodsman knows that the crushed



From the inner bark of the sycamore comes an effective astringent.

eaves of the plant are an efficient insect epellent.

A rather common plant encountered in vaste places, ash heaps and frequently in neglected backyards is the rank, coarse Jimson weed with its heavily scented, white, morning-glory-like flowers. It is a member of the nightshade family and like many of its relatives, contains a powerful narcotic poison sometimes used as a substitute for opium.

Singularly, the potato and tomato belong to the same deadly nightshade tribe. Curiously, some cultivated plants of this group may possess parts which are edible while other parts are definitely poisonous. Thus, the underground stem (tuber) of the common potato is edible while its seed pods, looking like little green tomatoes are poisonous. On the other hand, in the tomato it is the seed-pod that is eaten.

With the recent discovery of penicillin by Dr. Alexander Fleming we are apparently entering into a new and more scientific phase of plant medicine. This is a magnificent start what with penicillin already acclaimed by many to be the greatest medical discovery of this century.

Of course, everyone knows that the magic drug is a plant product, for the mold from which it is obtained is as much a plant as any tree, shrub or herb. Indeed, the blue-green molds of both Roquefort and Camembert cheeses are familiar to many. Both are close relatives of *Penicillium notatum* the source of the drug. And the chances are very good that you have seen *notatum* itself. I for one, now know that when my foot slips easily into a shoe or leather boot slightly damp when taken off the night before, that the ease of entry is due to a film of the slippery mold growing on the damp innersole.



Seeds and roots of skunk cabbage furnish a very valuable drug for spasms.



A patch of white trilliums. The drug they contain is a corrective in intestinal ailments.



Mayapple contains the drug podophyllin, a liver stimulate.



A drug in the root of pokeweed is useful in treating skin and blood diseases.

Minks



Minks have been known to attack animals larger than themselves, such as groundhogs.

ONE of the most interesting animals that lives in our wild and watery terrain is the cunning little mink. It is rarely seen in daytime since it is of a nocturnal habit and, being a member of the weasel family, it has been frequently mistaken for its closest kin the brown weasel. Both the mink and the weasel possess a number of similar traits, but the mink spends the greater part of its time along the swamps, streams, rivers and lakes. A small mink and a large brown weasel look very much alike and it would be difficult to tell the two apart in their natural environment even at only a few paces away.

To know these animals better is to know their distinguishing features. The weasel is light brown in body color, the tip of its tail is black and the abdominal underparts are a dull creamy-white; its fur is short. In comparison, the mink is dark brown in color, its tail is very dark brown or all black, while the fur is heavier, longer and richer-looking. In most instances a very small patch of white fur may occur at the lower part of its jaw.

The home of the mink is usually a subterranean cavity much like the burrow of the common muskrat except that it is usually well concealed beneath an entanglement of tree roots in over-hanging banks along the water. These animals, like the muskrats, have two or more openings leading into the hidden chamber of their underground burrow—an additional instinctive measure for self-preservation.

Most generally when we speak of minks we associate them with water, particularly fresh water streams and lakes, consequently it is assumed that these little animals are strictly a water-inhabiting species and we take for granted that they kill a great number of our game fish. It is not generally known, but it is a fact, that minks do a lot of their foraging in upland districts at considerable distances from water and trappers bag them in such sets as are ordinarily intended for foxes and other land fur-bearers. Its small size is offset by its great strength, agility and keenness in water as well as on land, and it has no trouble or difficulty in acquiring a full stomach under ordinary circumstances. Its natural food supply is endless, and even the most canny trappers agree that the mink will not fall an easy victim to ordinary bait sets. Flesh is commonly used to entice it into traps but, unless the flesh bait is fresh, it seldom has any appeal to a passing mink.

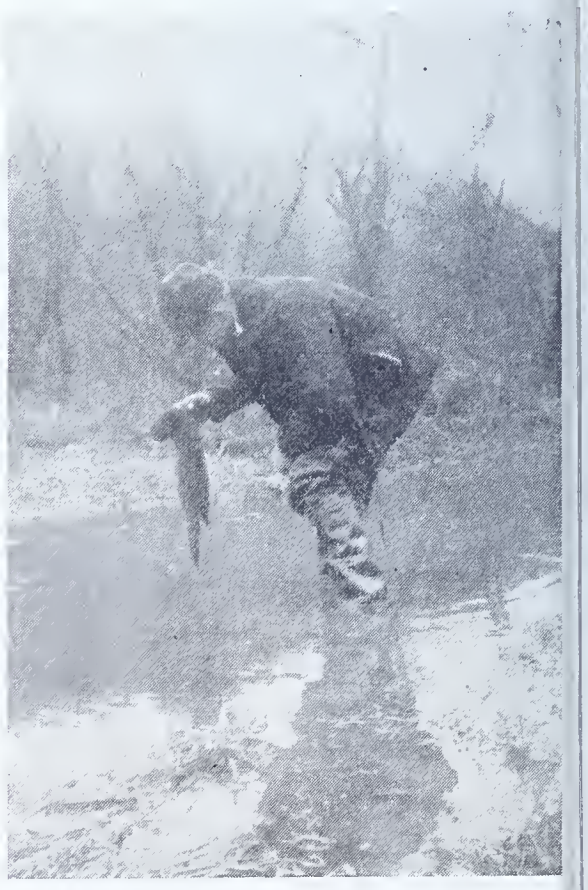
Undoubtedly, minks do kill some fish. In shallow waters the movement of a trout or a sucker could be quite readily detected, and a slippery mink could overtake the finny creature if there was a chance at all; but, if the fish would dart into a protective retreat of a narrow passage under a shelving rock, or under an entanglement of roots, the efforts of the enemy in pursuit would be frustrated. It is highly probable that the mink can use its eyes to advantage in seeking its prey in water, as long as the water is transparent and calm; however, under adverse conditions such as are frequent when waters are cloudy or rough, it is difficult to observe the movement of a trout, and we can rest assured that the fish is reasonably safe. Furthermore, the mink cannot stay long under water. About two minutes is as long as one of these animals can possibly go without coming up for a breath of air.

In following up the tracks of a mink along the water they show that the animal walks along the edge of the stream and enters the water when forced to do so as, for example, when a natural obstruction interferes. In the course of its meanders the mink enters just about every hole along the way, searching for food in every likely place that may contain one or another of the little dwellers that inhabit the dark passages of the moist subterranean labyrinth. Among these are the croaking frogs, the crawfish, mice and moles, water rats and muskrats, salamanders and even water snakes, and, it's a sure bet that these constitute an important part of the mink's diet.

The crawfish is a mainstay in that respect, and the examination of mink scats or dung, which is deposited on logs, stumps and stones in and along the water, reveals the presence of the hard, scaly substance of these little clawed creatures in ample abundance—convincing evidence that the mink loves to feast on them. Crawfish are one of the most plentiful of the water-inhabiting crustaceans they live in practically all of the shallow and slow-moving waters and minks encounter no difficulty in getting them while, on the other hand, the pursuit of a trout may require lightning-like speed. In the case of the muskrat it may even mean getting jammed up in a fight because the humble, peace-loving rat will not readily submit to becoming mincemeat for a mink.

When a mink overtakes one of its smaller victims the carcass is hauled up on the nearest elevated place in the vicinity—a log, a tree stump, boulder or something of the like—and there it is chewed up in much the same manner as the common house cat cuts its prey up when it munches on a sparrow. The mink's preference for the high point when dining comes from another inherited instinct—safety first. An elevated position affords it a commanding view of the immediate surroundings, and in case of danger it can dart away quickly. Foxes, wildcats, hawks and owls of the larger species are the chief natural adversaries of the mink family; trappers are the main control factor, and they do a pretty good job of it.

As far as mink environment is concerned the animal no longer possesses primeval ranges such as prevailed in the earlier days of Pennsylvania when every stream was a flow of pure, uncontaminated water abounding with a multitude of aquatic life. The mines, the mills, the tanneries and other modern industrial enterprises have polluted



Stream sets are the most successful in mink trapping.

By S. V. Sedlak



The wildcat is one of the chief natural enemies of the mink.

Thousands of miles of our once virgin watercourses, and with the contamination of these just about everything that was worthwhile in the water perished. Our very best mink producing sections range from the northeastern counties and westward through the northern tier to the Ohio border. In this rural territory we still have a lot of unpolluted water and much favorable mink habitat.

Pennsylvania's average annual catch of minks runs from about 7,000 to 8,000 animals per season. By far the most of these are taken in traps set in and along water. Away from water the chances of catching a mink are rather poor because one can never tell which course the animal will take on its excursion over upland terrain. In establishing water sets for minks the successful trapper always makes it his business to conseal them so as to make them undetectable to a mink. In trapping for upland furbearers no such precaution is necessary except in the case of the fox, and it is quite probable that carefully constructed fox sets account for more minks on higher ground than all the rest of the combined fur-taking land sets.

When the mink takes off from the water it is apt to travel even into the uppermost reaches of the roughest rocky sections of the highest ground in search of food. The male, especially, possesses this craving for wonderlust, and when this occurs it often means the absence of tiny- tell-tale imprints of minks along the regular runways near water.



Mr. Mink finds a happy home in this environment.

A male may be away from its place of nativity and regular haunts for a week, two weeks and even three weeks; not so, however, with the female. The females, however, prefer to stay at home and seldom travel far from it. There's always an ample supply of food about the lairs or denning places of these animals.

When the male is out on its cross-country tour it searches the earthen cavities, the heaps of debris and whatnot along the way much like it does when it is near water. Occasionally it will kill a rabbit, even a grouse or a pheasant if one of these birds should fail to make a hasty retreat. We rarely hear of a mink attacking a brood of chickens at night, still it is not uncommon to find mink tracks along the water in the vicinity of the farmer's poultry yard. When this little animal kills a larger creature of the wild such as a rabbit or a muskrat for example, it takes its fill, then retires into the nearest hiding place to lay over for a day or two, and returns again for at least another meal before departing for new hunting grounds, provided, of course, that some other flesh-eating creature has not gotten away with the illegal booty. The fox is especially noted for this habit. The fox doesn't always travel on a full stomach, but many times we misjudge it on the basis of the contents of its stomach. Little do we realize that Reynard picks up a considerable amount of the food which he consumes, and a lot of that consists of the layaways of weasels, minks and other carnivore.

To learn to know the mink, and to get acquainted with its habits, one should follow the tracks along the watercourses at periods when the weather is most conducive to the study. Summer months afford the best opportunity for this purpose. Waters are usually low and impressions of mink paws are quite easily recognized in the soft, slimy mud. Later on, with the approach of cold weather, signs that the little fur-bearers leave are more difficult to locate; falling foliage obliterates the little tell-tale tracks, frosts stiffen the soft earth, water levels are more subject to rise and fall, and even the drifting litters of leaves that heap up in foamy swells by onrushing currents have a tendency to blot out anything that would expose the presence of minks. All these factors tend to deceive the unexperienced eye.

Mink fur commences to prime with the arrival of chilly nights, but it takes a month or better of frosty weather to put the animal's precious coat of fur into top shape. At sometime from about the first to the fifteenth of November the fur roots of mink pelts are firmly set and the animals are in condition to trap. Even then, not every pelt turns out to be first grade if judged by incompetent hands, and some traces of unprimeness may show on the flesh side of the skin. However, many furriers agree that the fur in this case is at its best at that time since coloration and softness are at their maximum of beauty and this is regarded as essentially important in quality. Mink fur continues to be good through December and January but thereafter it fades fast, gets springy and otherwise inferior.

With climatic conditions changing quite rapidly, as they usually do during the fur-taking season, it keeps the trapper on his toes constantly if he is to be successful at all in catching minks. Falling and rising waters, debris, silt and ice are the major nuisances that have to be coped with. But if a man has enough ambition and grit to keep his mink sets from getting them jammed up with these natural hindrances, and if he exercises care in doing a good job of trap-setting, he will be pretty well recompensed for his time; otherwise, he might just as well not bother trying to catch minks because it's a game that calls for a science of masterful application and hard work. Indeed, the wild mink is an interesting creature and, with all that it has to offer in the way of fascination, a man can spend a lifetime learning the habits of this premium product of the woods and still not know it all.



Photo courtesy Audubon Magazine.

Young opossums learn to hitchhike early.

Friends of the Land

I WONDER how many people know that there is an organization called "Friends of the Land" which is doing a bang-up conservation job. This group, though still a mere infant—it was born in March, 1940—is a non-partisan, non-profit, independent organization, supported entirely by its members, working in full cooperation with all government and private agencies to support, increase, and to a greater degree to unify all efforts for the control and wise use of rain, soil, and all living products of field, stream, and forest so that man himself might benefit now and in the years to come.

If we stop to think a minute, there is nothing in this great country which does not stem either directly or indirectly from the land.

The quality and power of a nation are dependent upon its citizens and its natural resources. With proper development of these two factors, a nation will rise to new levels of prosperity and greatness. But the quality of citizenship usually goes hand in hand with the degree of conservation of the natural resources. Great nations, once noble and rich, have been evicted from the landscape as the citizens failed in their responsibilities in regard to saving their soil and water.

We have hurt the land. We have made much of it ugly—ugly to see and ugly in the plain implication that land laid to waste will not support an America that will be forever strong and secure. We all live on, or from the soil. Soil misuse makes people poor. Soil debility soon removes stiffening lime from the national backbone, lowers the beat and vigor of the national bloodstream, and leads to a devitalized society. But, we keep on scrubbing off, blowing off, killing off our topsoil. That is what is happening with a menacing and incredible speed in these United States.

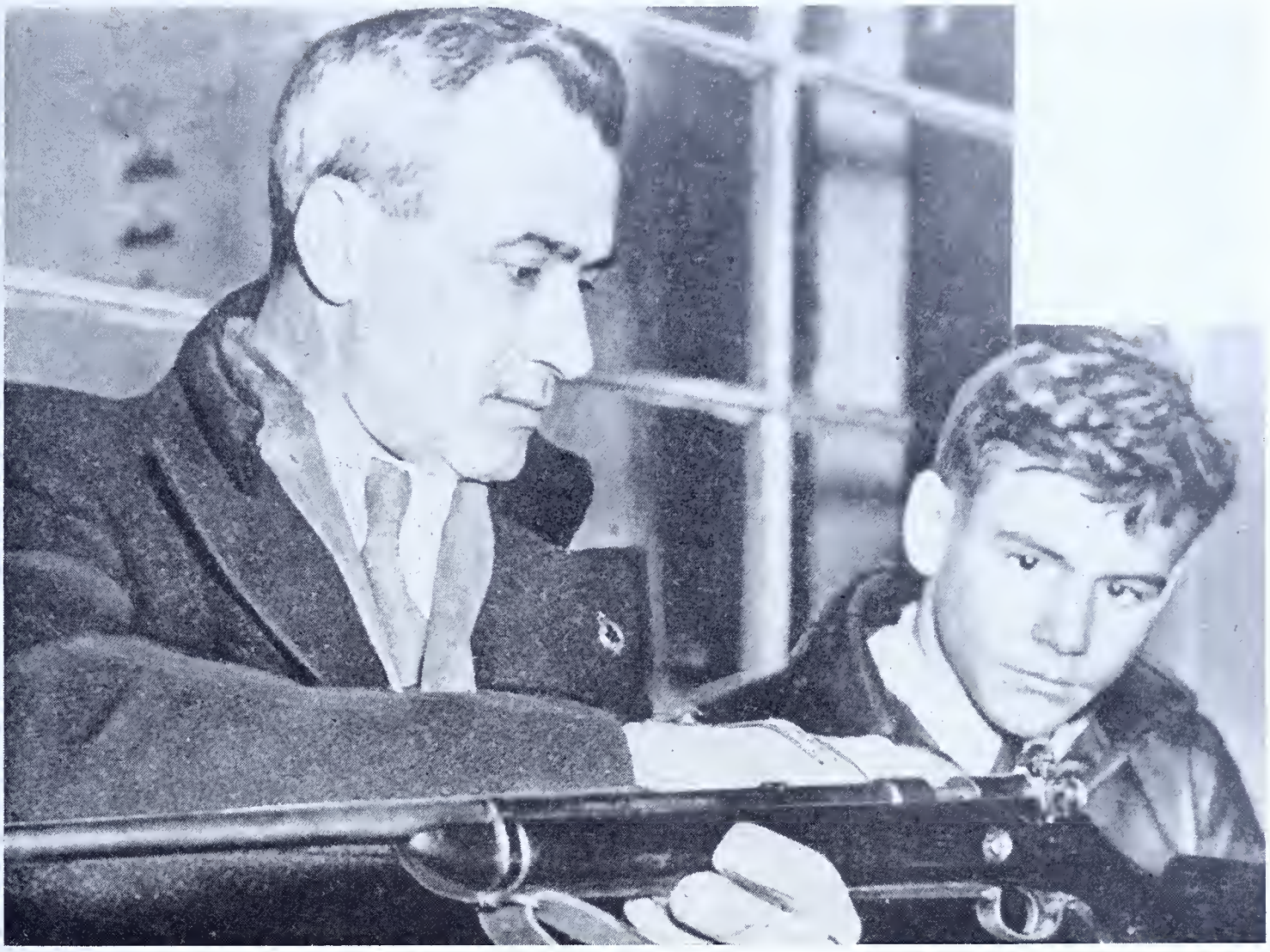
On the other hand, the quality of the land may be improved by Conservation, by slowing down the depletion and destruction of land by erosion, by replacing used or lost nitrates and humus by legumes, and by adding missing phosphates, lime, and potash in selected fertilizers. That the net result of land-use practices to date has been soil erosion, depletion, and deterioration, not conservation and improvement is evident: 50,000,000 acres of once-productive crop land is now essentially ruined for clean tilled crops and its productivity greatly reduced for all time; another 50,000,000 acres is nearly as depleted; and hundreds of thousands of farmers in this country are attempting to farm land which is so poor and eroded as to offer no chance of yielding an American standard of living.

Dust storms, floods, droughts, forest fires, exhausted land, polluted streams, extinct or depleted wildlife, dwindling storehouses of underground resources—these dismal and frightening realities have made the nation in recent years increasingly aware of the hurt our land has sustained.

This hurt has been watched by many individuals but usually their efforts along the conservation line have been in the field of their own particular interest. Thus, the ornithologist appeals to bird lovers; the forester to those who love the woods. The hunter and the fisherman harken to the cry for the restoration of abundant wild life. The farmer's conservation language is spoken in terms of contouring, strip cropping, terracing, check dams, and grass waterways. The agronomist talks in terms of crop rotation and soil management; the engineer of flood control, navigation, and hydraulic power.

However, all these individual interests have as a common interest the soil and it

(Continued on Page 32)



This boy will be a better sportsman because he was taught "gun-lore".

More About Junior Clubs

LAST month Frank Jurczak of the Ambridge District Sportsmen's Association told how his club is helping the cause of juvenile delinquency through a junior organization, and right on the heels of his little story we received another from Bob Ekvall of the Carrick Sportsmen's Club along the very same line. The Carrick group is also behind the junior club idea 100% and we believe many other sportsmen's associations will be interested in hearing what Mr. Ekvall has to say on the subject. Here it is:

"The By-Laws of our CARRICK SPORTSMEN'S CLUB permit us to accept members as young as sixteen. To this day, since I have been a member, I have yet to see any boy that age urged to join us. We have gone out after members, we have had drives and we have overcome the natural mortality rate of clubs such as ours by adding NEW blood but not YOUNG blood. Now I have no quarrel with older blood when used in our type of transfusion. I am not exactly a Kid any longer, myself, but we must be more far-sighted. We must think this thought through and then we shall realize that we can not grow, we can not surge ahead, we can not reach the peak of success that a great organization such as ours should occupy, by adding older men and ignoring the younger fellows . . . They have that flame that has died to a feeble spark in most of us. They have the enthusiasm that has not been dulled by contact with the roughness of life . . . We need those youngsters and by the same token, they need us . . .

"I propose to you that we change our By-Laws, if necessary, altho I don't believe it will be, and open our ranks to these young boys from sixteen upwards. I propose that we accept them as Junior Members, a position they will hold until they are eighteen, or older if you choose. I propose that as Junior Members they have full rights with two exceptions . . . First: That they be not permitted to vote at Club Meetings until they attain the age and status of a Senior. Secondly: That no Junior Member be eligible to sit on the Board of Directors . . . However, in that respect, I suggest that one member of the Junior group be selected, by means to be determined later, to meet with the Board of Directors and express the viewpoint of the Junior group. In this way, I suggest, the equity and rights of every Senior member will be preserved and yet we will create our own Farm, as it were, from which we shall reap a fruitful harvest as the years roll by in their relentless race toward eternity.

"I offer you one last suggestion: Let each and every man select, introduce and sponsor one young boy of this Junior age. Bring him into the Club, sponsor him to the fullest extent . . . Pay his dues for him to make his entry possible . . . Right here I want to inject a thought . . . Let us make these dues for the Junior Membership a figure within reason . . . I propose that we set them at one dollar to include initiation and the first year and let them be one dollar per year thereafter until the Junior Member attains Senior status at which time his dues shall become the same as ours and he too will be asked to find and sponsor a boy in the Junior group.

"I hope that each man who sponsors a boy, whether it be his own son or the child of another, will become more than a passing acquaintance. Let him associate with the boy and take him into the field and onto the stream and teach him not to be a meat hunter or a killer but a true lover of outdoor life and a respector of the rights and property of others . . . Let each man instruct his boy in the care of a gun and how to handle it under all conditions. . . . Let him grow to know the boy and help mold the character that will develop under such ideal companionship . . . Let every one of us take stock of ourselves and ask just one

(Continued on Page 31)

WITH THOSE IN THE SERVICE

Here's a few excerpts from a letter from our good old friend and scribe Stanley Cooper. Let's have more Stanley:

"Our base at Sheppard Field is a relatively new Air Base just below the Oklahoma border five miles from Wichita Falls. So far its been grand and I feel sure I can take it. The worst feature about this base is the water. The water in the barracks tastes like sulphur and you feel it won't stay down. You then grab your canteen and start hunting for a waterbag which are suspended from tripods on the corners of different streets as you are all set for a good drink the darn stuff in the bags tastes like iodine and you give it up as a bad job. Some fellows buy cokes at the P.X.'s and put them in their canteen for the night.

"Our bags aren't heavy enough so today we were issued more equipment including gas masks, bivouac equipment, and plenty of others.

"Today we were given another physical examination and had additional processing. Our basic training here will consist of close order drill, extended order drill, orientation, medical training, map reading, sanitation, chemical warfare, gas chamber training, rifle range and bivouac.

"Down here the Texas moon is a thing of majestic beauty. An immense large red disc in the sky which brings back to your mind the memories of the fiction of the old West. The drawl of the Texans, the wide open spaces all lend enchantment of a new life for a G.I. Private.

"In fact I already would have material for a book if I would have time to write it. Tell all my friends to write and I am interested in a list of Game Commission employees who are in service as I might encounter some of the boys down here. By the way you could set your beloved city in Sheppard Field and it would be swallowed completely."—Stanley Cooper.



A note from S. K. Weigel, S 2/C, who is now at the United States Naval Training Center, Sampson, New York says "I've had an opportunity of seeing some of the country around here. It is very beautiful and also of much historical interest as a lot of Indian wars were fought here. General Sullivan had his army through this section. It is surprising the amount of ringnecks they have here. The country is ideally suited to them. I've also noticed "NO HUNTING" signs in abundance. No doubt that is a New York problem also. Deer are becoming numerous enough here to do a lot of crop damage."

Perry (Wink) Kaiser, an employe of the Loyalsock State Game Farm who is now serving on the S.S. Piedmont, Division 2, c/o Fleet Post Office, San Francisco, California, writes in part that he has seen a lot of different tropical birds, that he would not exchange any of them for a couple of the little bear cubs that occasionally are brought to the farm for safe keeping after they were picked up in the woods.

"I am almost ashamed to say when I wrote you last. But the letter of yours that I am endeavoring to answer now is dated February 8. As an apology for the undue delay, suffice it to say that I have been most extremely busy, and have had precious little time for correspondence other than that of a GI nature, if you get what I mean. Trexler had a pet saying that about covers my case—'as busy as a cat on a marble table,' and you can probably recall the rest of it.

"Little has taken place since last writing you that I can think of at the moment. Things here progress in the same usual style, so there is little to comment.

"Had the opportunity to see a fawn of the local species sometime ago. One of the fellows brought it in to camp, having found it on the road some distance from here. It was a very delicate, yes, beautiful creature. In size it was about 10" high, probably, if my recollecion is correct, about 12" long, and weighed, as near as I could tell from 'hefting' it, about four pounds. Its legs were about the thickness of a lead pencil, and the feet-tracks about ½" long! It probably wasn't over several days old, and it was surprising how it drank milk. It stuck its little snout down in the cup and drank like an old timer. It resembled our own whitetail fawn very much, in all respects but for size. That is the only deer I've seen here, though I've seen quite a few tracks on the beach.

"Killed a pretty (colored) snake the other night. It was colored like the coral you probably know but the bands were irregular. About 4' long. The natives said 'kill you in 45 minutes'—but I take it for what its worth, as local info is usually not too reliable. It did have fangs, but I didn't care to sample it otherwise. It didn't act vicious, but that may have been due to it being blinded by the lights from the jeep. I tried to pin it under the wheel, but it wriggled away each time, and finally we got out and 'rocked' it to death. They have a very nice jaguar in the Zoo in Cayenne. Feed it dogs, alive, of course. Judging from the dog population, it can live to a ripe old age, too.

"Saw a pair of Ivory Billed Woodpeckers sometime ago. Some weeks or rather months ago, one of our Pennsylvania fellows and I were out hunting, which he and I did often, and on that particular hike he shot a large hawk, and I got a monkey. The monk was a little brown fellow about the size of a young cat. The jungle was too thick I couldn't find him, but it came down all-right. The hawk was white underneath, and didn't resemble much any of yours up there. Used the Sprinfield on those.

"Had a letter from Fackler, the first time in months, the other day. It was surely good to hear from him. I've been getting the Game News regularly, and surely enjoy it. It's the only way I have of keeping track of some of the fellows most of which I don't hear from otherwise. I notice that some more of 'our gang' went into the Service, and also that some of our 'old timers' dropped out. Sorry to see them leave. I certainly did enjoy the fall of '41 with Koehler.

"Gosh, I'll be glad to see good old USA and all that's in it again! I'm getting tired of this monotonous climate. No, it isn't unbearably hot, about 80° is the average. It rains often, and HARD! I still don't quite think that these climates were created for man to live in. Let the mosquitoes have them, they seem to thrive best here anyway. What would I give to see a good snowdrift again!

"Hoping that my next letter will be written in answer to yours sooner than this one was, and again, asking your pardon for the delay, I remain,

Sincerely,
S/Sgt. Martin L. Shaffer."



Uniform Plan for Special Fox Hunting Seasons Adopted

ON MAY 6 the Game Commission prepared the way for establishing a uniform period during which the hunting of foxes with dogs may be permitted. The action taken was published in the July GAME NEWS. The Commission did not take this step to deprive any group from enjoying any special privileges authorized by law. It did it to clear up past misunderstandings concerning the matter, and to establish a starting point around which a uniform season could be evolved. Immediately afterwards it began a serious study to determine what 60-day period between April 1 and August 19 (which period normally constitutes the breeding season for wildlife) would serve the purpose best.

Nonetheless, the study had barely been started when Mr. Guy Kepner of New Bloomfield, vice-president of the Pennsylvania State Fox Hunter's Association, acting in behalf of the fox hunters of Susquehanna County, one of 15 in which special fox hunting seasons had been in effect, petitioned the Dauphin County Court to order the Commission to rescind its action and to re-establish the special season which that county had enjoyed during the past six summers.

The petitioners contended that the Commission directly controverted the provisions of law under which the fox hunting season was bound to re-open June 1, following their previously effective 60-day closed period, which was from April 1 to May 30.

On the heels of this court action President Ross L. Leffler of the Pennsylvania Game Commission immediately informed the press of the whole situation in an effort to have all the related facts fully understood by those concerned. In his announcement Mr. Leffler pointed out that "Special fox hunting seasons had been in effect in fifteen (15) counties; namely, Beaver, Butler, Fayette, Greene, Lackawanna, Lancaster, Lebanon, McKean, Mifflin, Perry, Susquehanna, Venango, Washington, Westmoreland, and York, the Commission originally having approved the rather confusing dates which the petitioners requested. Since June 1 the statewide use of all classes of dogs is controlled by the general law in effect during the period from April 1 to August 19 inclusive."

He further stated that "When the Game Code was revised by the 1937 Legislature a general provision made it unlawful for dogs to disturb wildlife from April 1 to August 19 inclusive. However, a few individuals who desired to chase foxes during the breeding season had a special clause inserted which, upon petition of 250 qualified residents, requires the Commission to designate a 60-day period between said dates when fox hunting may not be done, but which allows them to use their dogs the remainder of the year."

President Leffler, in concluding his statement, said that "The Game Commission is fully in sympathy with the widespread feeling that no dogs should be permitted in the field during the breeding season because they are very detrimental to small game propagation. However, so long as the legislation in question remains on the statute books we have no choice in the matter other than to fix the prohibited 60-day period in any counties filing petitions."

Later the Department of Justice filed with the Dauphin County Court, in behalf of the Game Commission, a motion to dismiss the petition for a writ of peremptory mandamus on the grounds that:

1. The petition failed to set forth a cause of action.

2. The defendant should not be required to answer the facts averred since they have a full and complete defense to plaintiff's claim which does not require the production of evidence to sustain it.

3. Since the original petition to hunt foxes under special privileges in Susquehanna County was filed in 1937 to fix a 60-day closed season for the year 1938, it did not apply to succeeding years, and that "therefore the action of the Pennsylvania Game Commission on May 6, 1944, rescinding its prior order had only the effect of echoing what the law had already done."

The Commission at its meeting on July 13 fixed, by formal resolution, a uniform period from May 2 to June 30 as the closed period for hunting or chasing foxes with dogs in any county that may file the required petition, but such petition will apply only to the calendar year for which filed. It is believed that this action of the Commission will solve the problem to the satisfaction of all concerned, and that it will be received favorably by the sportsmen.

Now that a uniform closed season has been established any counties interested in submitting a petition requesting the special privileges of using their dogs to chase foxes may again do so, and the Commission will give them prompt consideration. The resolution below is self-explanatory:

Resolution Concerning Special Fox Hunting Seasons

"WHEREAS, The provisions of Section 719 of the Act of June 3, 1937, P. L. 1225, as amended by an Act approved the 13th day of April, 1942, P. L. 28, prohibit the owner of any dog, or dogs under his control, from allowing such dog to chase, pursue, or follow upon the track of any wild bird or wild animal between the first day of April and the nineteenth day of August inclusive, next following, unless said dog is being used to hunt or chase foxes under the conditions hereinafter stipulated. and

"WHEREAS, In accordance with the provisions of said Act, the Pennsylvania Game Commission, 'upon receipt of a petition filed by two hundred and fifty or more residents of a county who held hunting licenses the previous year, or who are farmers or sheep raisers, whether licensed to hunt or not,' is required to designate a sixty-day period between April 1 and August 19 inclusive for such county, or part thereof, during which hunting or chasing foxes with dogs shall not be lawful, said action automatically legalizing the use of dogs for fox hunting or chasing within such county, or part thereof, throughout the balance of the year; and

"WHEREAS, The Department of Justice this day has advised the Commission that it is clearly the intent of the Legislature that such petitions shall be applicable only to the calendar year in or for which they are filed, and that unless new petitions are filed annually no county may legally continue to enjoy a special fox hunting season from year to year on the basis of the original petition;

"NOW, THEREFORE, BE IT RESOLVED, That, upon motion made and unanimously adopted this 13th day of July, 1944, the Pennsylvania Game Commission hereby fixes a uniform sixty-day closed period from May 2 to June 30 for hunting or chasing foxes with dogs in any county or counties, or part thereof, that may file a petition in accordance with the provisions of the Act cited; and

"BE IT FURTHER RESOLVED, That the Executive Director is instructed and directed to certify from time to time the filing of any such petition or petitions during or for each calendar year, and to publish notice thereof in summarized form in the county or counties affected, including the sixty-day closed period hereinbefore fixed by the Pennsylvania Game Commission, in accordance with the provisions of Section 505, Article V, of the Act aforesaid; and upon completion of such advertisement and filing of proof of publication with the Commission such special fox hunting season shall become fully operative in accordance with this action."

(See Page 22)

Taxidermy Exams

Persons desiring to practice taxidermy will be given an opportunity to take the required examinations on September 13, 1944.

Until all applications have been received it cannot be determined whether the examination will be given at Harrisburg, or whether applicants will be directed to take it from the Member of the Taxidermy Board residing nearest them.

The Game Code requires that applicants be citizens of the United States, 21 or more years of age, and prove competency to engage in the practice of taxidermy.

Applications may be secured by addressing the Pennsylvania Game Commission at Harrisburg.

Why Not?

(Continued from page 8)

their small tails twined about in hers for support and reminding one of commuters on the five o'clock subway. These are only a few of the pictures which the art gallery of nature has to offer the interested observer.

Identification of our migratory waterfowl is an interesting hobby for a clever lass. Armed with a good field guide and your own patience and perseverance you can soon become as adept at spotting these travelers as your plane spotters are at calling the types of aircraft. Think of the impression you could make on your favorite Marine by saying, very casually, of course, "Oh those are pintails" as you stroll past a pond where these migrants are resting.

If you become a woods enthusiast, then other animals will interest you. You'll never forget, I'm quite sure, the thrill of having a grouse whirl up and away from your feet, or the first glimpse of a strutting turkey gobbler with the sun glinting on his bronze, iridescent feathers. The bright-eyed squirrel will chatter constantly at your invasion of his homeland, and the memory of his cunning antics will cause you to smile many times in the long work days which follow your outing.

Some of you may be wondering if the fellows wouldn't object to our taking over another one of their so-called prerogatives. Well, it depends on how you go about learning to hunt. If you propose to tag along, stopping every half hour to rest or to powder your nose while someone else shoulders your gun as well as his own; if you have to be helped across every fence or rough place along the way; and if, when the dogs retrieve a bird downed with a particularly good shot, you squeal with pity and drip all over the place about the poor little bird—Lady, stay at home. Under these conditions even the most tolerant male will be all for shooting you before the first hour is up.

If, on the other hand, you go along with a determination to keep up your end of things and to observe just how everything is done so that you learn quickly with a minimum of questions, you will be a most popular member of the hunting party. I don't think there is any man who wouldn't share his sport with his wife, daughter, or sweetheart if she went about it in this way. Your interest in the sport would probably cause him to regard you with even more affection than formerly.

Now we come to an important phase of this getting out business, your clothes. The fellows, of course, swear by an old battered hat, without which they know their day would be a failure, but their other clothes, take notice, gals, are 100 per cent practical. A fancy, expensive outfit is certainly not a necessity, but it is equally as unnecessary to look as if you were an orphaned waif in someone's cast-off clothing. Your clothes should be plain and durable, warm and comfortable. If you are going to hunt, may I suggest good water-proof boots, a pair of briar-proof breeches—and these are important, believe me, a good rain-proof jacket or coat, preferably one with a "game pocket", and a warm sweater or shirt to wear under it. There are many types of hats from which you can choose. A ski cap is both becoming and practical. In choosing your boots, make sure they are big enough to take your feet plus a pair of heavy wool socks. These socks prevent blisters and keep your feet warm. Incidentally, another trick in keeping feet warm that is worthy of notice is that of pulling on a pair of silk socks before donning the wool ones. The friction created between the two acts as a stove for cold toes.

If you are just an observer, the above mentioned clothes are not so necessary, but may I stress that regardless of whether you're hunting or "Just looking, thanks", it is a good thing to remember that the prime requisite of all outdoor-clothes is comfort. Also, in most cases, you'll find that you need warmer clothes for the role of spectator than you would require if you were hunting. Your shoes should be stout and comfortable with emphasis on the comfortable, and it is a good idea never to wear anything which has to be protected against snagging or tearing; remember the woods are not too kind to flimsy clothes.

Hair presents quite a problem especially to those of us who haven't cherub-curl cuts. I find pig-tails to be quaint, attractive and certainly the ideal arrangement to keep hair smoothly in place regardless of wind, rain and switching tree branches. Of course, you can always coil it at the nape of your neck, if it doesn't make you look like a forgotten child. Simply tying the hair back, George Washington style, works too. A few minutes experimentation with your own locks before the proposed outing should give you the answer to this problem. The main thing is to get them tucked away securely so they will not become entangled in bushes and tree branches.

The gun which you should choose may present what seems to be an overwhelming problem, especially to you gals who have never thought of a gun execpt as a necessary part of a policeman. The man-in-your-life should be able to come to your rescue here, but if he is too busy at present showing the Japanese the Yankee way to use a gun, maybe these suggestions will help. You want a gun which is light-weight enough for you to swing up to your shoulder easily and

These girls have learned to appreciate the excitement of the chase and the satisfaction of a clean kill.





Managing the Waterfowl

(Continued from page 5)



Canada Geese on Lake Mattamuskeet.

such a system could possibly be applied. Even after it had been established, there would be an annual crop of demands from this region and that to be shifted to one flyway or another, or from one zone in a flyway to another. Duck hunters have notoriously poor memories and see themselves largely from a local standpoint and in the particular year in which their shooting has been affected. If someone else gets better shooting in a neighboring community or State, the inevitable result is a cry to be put in the same zone and same shooting time as that particular area, regardless of what the cause of poor shooting in the first area may have been. No thought appears to be given to that essential point.

Local flights of waterfowl and the time that they spend in any locality vary widely, in response to numerous factors. Some of these can be corrected gradually by good management. Others can never be corrected by management or anticipated in the making of regulations. Where the birds do not stop, or make very brief stops, because of lack of sufficient food and resting grounds, the establishment of refuges and other marsh lands may in time bring a favorable change. Where the cause of local waterfowl scarcity is weather variations, nothing that man has yet learned can have any effect.

Hunters, officials, all concerned should realize that we are dealing with birds of great powers of locomotion, which have the habit of moving widely over the continent in great migratory flights, and appear to exercise some choice as to where they go and how long they remain in any part of their flyway. I am sure that any influence that can be exerted on creatures with these habits will have to be done through management of environmental and water conditions, that the results obtained will be for the almost mythical "average" year, and that we should always be prepared to admit that local weather conditions may defeat the objectives in any given year.

As I stated in the beginning, there is no intention of putting a new program into effect at the present time. The flyway concept, with its almost necessary flexibility of regulations, is being presented for discussion and consideration as a basic philosophy which might ultimately permit of more adequate management than is possible under the present zonal system. It is our intention to discuss this subject further with the International Association of Game, Fish, and Conservation Commissioners at their meeting in Chicago next September.

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swiftly when game gets up in front of you. My pet for most kinds of hunting is a 410. However, a 20-gauge shotgun is a splendid light, accurate one for women. There are some of our sisters who have been hunting for quite a while who will tell you that a 12-gauge is the only shotgun for all practical purposes. For them it probably is, but for any beginner I would strongly advise against anything with more kick than a 16-gauge shotgun. A gun is a personal matter, however, and each hunter has his favorite. The best way to choose a gun is to go in to a good reliable gun store and look over the available stock, then choose one which seems to handle the most naturally for you. Be careful that you don't get a gun which is too big for you to handle. Another caution, before buying a gun you'd best look at the hunting laws of your state. They differ widely from state to state and you'd better be sure that the gun you choose will be a legal weapon in the state in which you intend to hunt.

So, gals, lets us get out this year and find out what this hunting business is all about. Who knows, maybe we've been missing a good time and lots of healthful recreational sport. Oh yes, if you go hunting don't forget to get a hunting license and a copy of the game laws for your state.

Try it, won't you????

Poisonous Snakes

(Continued from page 7)

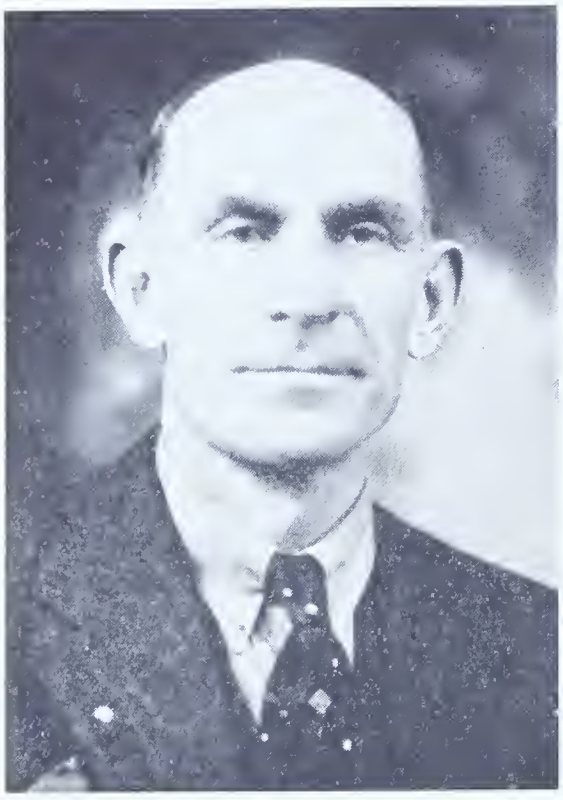
ly through the fang marks. If cutting is done within 30 seconds much venom will be washed out with the first rush of blood, and symptoms of poisoning may not develop. Apply handkerchief, G.I. web belt, or shoestring between wound and heart, as a *gentle* tourniquet to *retard* flow of venous blood and lymph *but not tight enough to stop arterial flow*. Place piece of thin rubber over wound and suck. If no rubber is available, suck with mouth anyway—it's far less dangerous than leaving venom in wound. Remember that few husky men die from snake-bite if cutting and sucking are carried out. Keep as quiet as possible, loosen tourniquet every 10 minutes, drink coffee if available, get to first-aid post for further treatment. *Drink no alcohol unless to celebrate your recovery.*"

These directions are the briefest condensation of the recommendations of physicians experienced in the treatment of snake bite that I have been able to evolve. A unique feature of this "Netting Snake Bite Kit," as it has been nicknamed, is that it cannot be purchased anywhere. Copy the directions, or improve them as experience dictates, dip your own razor blades, and hand the ensemble out to as many soldiers as you wish. Nintey-nine per cent of them will never be bitten by a poisonous snake, but the razor blade may prove useful for a variety of purposes!—Reprint from *The Biologist,* Vol. XXV, Nos. 3 and 4:44-47, May, 1944.

"The foxes in this section are sure taking a toll of poultry. One farmer heard foxes barking early one morning on his poultry range and upon investigation saw three of the animals after his chickens. They had already killed 87 chickens. He killed one of the foxes and the other two escaped. I know of another man who had 41 chickens killed by foxes at one time."—Game Protector E. J. Turner, Leesport.

A Game Protector was notified that two bucks in deadly combat had their antlers locked and that one had already killed the other and was dragging it around. He finally located the animals and found the report to be true. The living animal, however, was still full of fight and charged him with the dead one hanging to its antlers. The Protector shot it, not so much in self defense but to prevent the creature's ultimate starvation.

★ ★ ★ CURRENT TOPICS ★ ★ ★



M. E. Sherman
Supervisor, Division "E"

KNOW THEM BETTER

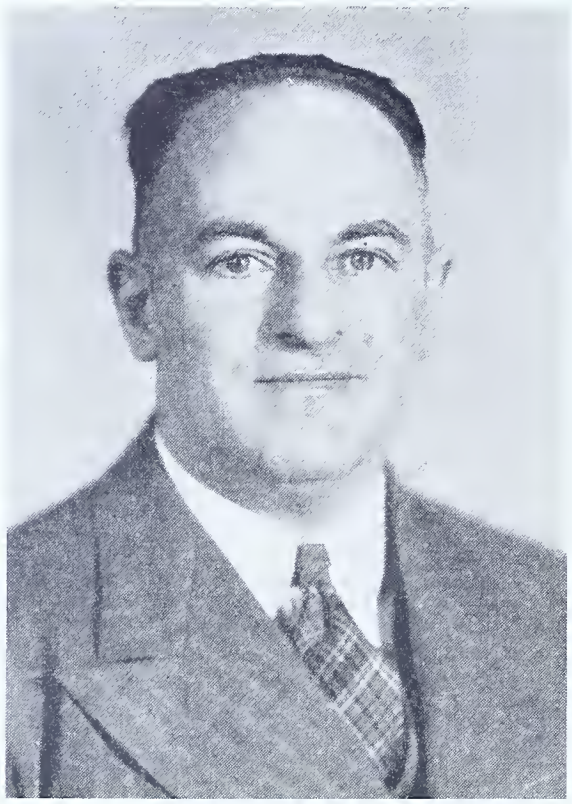
One of the oldest employes in point of service, Supervisor Maurice Sherman has been one of the hubs on which the Esprit de Corps of the Commission has revolved. Born and educated in the rural districts of Fulton County, he entered the Regular Army in 1910 and served in the Philippines and on the Mexican Border until 1913 when he was honorably discharged as a Sergeant. Two weeks later he joined the Pennsylvania State Police, attaining the rank of Sergeant in three and a half years. He again joined the Army in World War No. 1, serving overseas in the Light Field Artillery and Service of Supply until it ended. He entered as a Private and followed the grades from Corporal to Second Lieutenant. When discharged he was given a Reserve Commission as a First Lieutenant in the Remount Service.

Mr. Sherman began his service with the Game Commission in 1919 as a Game Protector, was made a Traveling Game Protector in 1922, and a Field Division Supervisor in 1930.

He is an all-round outdoorsman and conservationist.

MAKES SUPREME SACRIFICE

A few months ago we received an interesting letter from Lt. Robert G. Machen which we published on Page 29 of the July issue. Several weeks later Mrs. Machen wrote and asked for a copy of the issue containing it, but just a short time later she wrote again saying that if we hadn't published it that we were not to do so because the Lieutenant had made the supreme sacrifice on D-Day. Our deepest sympathies go to Mrs. Machen. If you have not already read the item referred to, please do so. It bespeaks the sentiments of a great many men from the Keystone State serving in the armed forces.



Hayes T. Englert
Supervisor, Division "F"

KNOW THEM BETTER

Another oldtimer in point of service, Supervisor Hayes T. Englert came up through the ranks steadfastly and surely, helping always to keep the banner of conservation waving high along the often weary march.

Hayes began his career with the Commission in 1922 as a Refuge Keeper, was appointed a Game Protector in 1926, and a Supervisor ten years later.

His hobby is shooting. He set new National Records with the Center Fire Revolver at Buffalo, N. Y., in 1938 and Akron, Ohio, in 1939. Both records were accepted by the National Rifle Association which awarded certificates of merit in each case.

"While gathering eggs in the turkey area at Game Lands No. 49 Orrie Smith killed a blacksnake that had eaten five turkey eggs; one egg was still unbroken. It was removed from the snake and sent to the turkey farm.

"While on a quail survey in Licking Creek Township Mr. Studholme and I killed a blacksnake that had just eaten all the eggs from a robin's nest. I killed one at the garage at Orrie Smith's headquarters that was trying to get a nest of peewees."—Game Protector Isaac Baumgardner, McConnellsburg.

Mr. Hunter:

Please be a sportsman and keep your dogs out of soy bean fields, especially during the gunning season. Even while training, farmers don't like to have dogs running through their soy beans. To respect this wish is little enough in return for the privileges the landowner gives you.



Rollin Heffelfinger
Supervisor, Division "G"

KNOW THEM BETTER

Supervisor Rollin Heffelfinger, the last of the 'three horsemen' appearing in this issue, also measures his service in terms of many years. Like the others he rose from the ranks, and his zeal has been an inspiration to everyone of his associates.

Rollin began his service as an Assistant Game Protector in 1926, was promoted to Game Protector in 1929 and Supervisor in 1936. He is much interested in the educational program of the Commission and has helped greatly to promote it.

He served as a Military Expert for the U. S. Navy in 1912 and 1913 and again in 1917.

PETITION GRANTED

As this magazine was going to press on June 25, the Susquehanna County Fox Hunters Association filed a petition for a special season to hunt or chase foxes with dogs in that county during 1944. It was signed by 350 residents of the county (the law requires only 250 qualified signers), and the Commission, in accordance with its resolution of July 13, took immediate steps to make it effective. The required advertisements for two successive weeks were inserted in two Susquehanna County newspapers serving public notice that the petition had been filed. Immediately upon receipt of sworn affidavits that the legal notices were published the association will be notified that the special season is in effect. We predict this will be about August 4, which will give them the benefit of at least part of the special season allowable in 1944.

"Turkey eggs gathered from turkey area No. 2 to date—113 eggs."—Game Protector, Land Mangement, Orrie E. Smith, Amaranth.

SUBSTANTIAL INCREASE OF GAME PREDICTED

A recent game and wildlife survey made by the Remington Arms Company indicates a substantial increase of many species of game birds and animals within the next few years. Predictions made are based on opinions expressed both by state and federal authorities and by experienced sportsmen and observers who have no official governmental connections.

As no one can definitely predict conditions twenty years hence, the percentages presented must be considered only in the light of the composite opinion of the best authorities obtainable. The estimate of a probable increase in game populations amounting to 16% in 5 years and 27% in 20 years should be encouraging to American sportsmen.

A few more summarized conclusions contained in the survey, which is the first of its kind ever made, are:

The appointment of Dr. Clarence Cottam, biologist of the Fish and Wildlife Service, to a new position as assistant to the director, was announced recently by Dr. Ira N. Gabrielson, Service director. Since 1934, Dr. Cottam has been in charge of a Section devoted to research on economic wildlife problems for the Service. In his new position he will serve as a coordinating and liaison officer for the Service in the field of wildlife conservation and management in connection with other land-use agencies, particularly the Bureau of Reclamation, the Army Engineers of the War Department, the Tennessee Valley Authority, and other Federal and State agencies.

For seven years the Federated Rhode Island Sportsmen's Clubs have waged a battle to have set aside certain state owned forest areas for public hunting grounds. Recently their battle was won through the passage of Senate Bill 97 introduced in the Rhode Island legislature at the request of the Federation. The bill has been signed by the governor and is now the law.

Rhode Island is a small state, yet it has excellent opportunity to give better hunting and fishing to its many thousands of sportsmen who are enthusiastic over the possibilities that are found in this new law.

There is a growing conviction that states must give more consideration to the matter of providing places for sportsmen to reap the game crop.

NATIONAL DOG WEEK

National Dog Week is a non-profit educational movement aiming to make the dog more valuable to his owner and more acceptable to the non-owner. Support for the movement is entirely from voluntary contributions by individual dog lovers and firms operating in the dog field. National chairman is Captain Will Judy, Editor of the Dog World Magazine who was the originator of National Dog Week in 1928. The report of National Dog Week for 1943 has just come off the press. Copies may be had on request to the headquarters of National Dog Week, 3323 Michigan Boulevard, Chicago 16, Illinois.

750,000 ACRES OF STATE GAME LANDS

Knowing the public desire to be kept posted on the extent and acreage contained in the several classifications of land areas owned or under nominal control of the Game Commission for wildlife management purposes, there is herein presented a resume as of May 31, 1944, the end of the Commonwealth's fiscal year.

On that date, the aggregate area of State Game Lands, comprising several thousands of tracts for which title is vested in the Commonwealth for use of the Commission, but not including tracts approved for purchase for which settlements are pending, was 749,998 acres. This comprised 184 unit blocks, distributed through 62 of the 67 counties of the State. When title for a large acreage in Dauphin and Lebanon Counties, under contract for purchase, is conveyed, 63 counties will be represented.

At the end of the fiscal year approximately 66,800 acres additional were under contract for purchase, going through the various stages of title and survey work required before settlements can be made and title secured. Indications are that certain of the tracts involved will not be acquired due to defects of title. However, it is reasonably safe to assume that the aggregate area of State Game Lands will shortly reach 800,000 acres.

The question arises as to when the million acre mark might be reached? The answer thereto is somewhat "obscure," if we may be permitted to use a term frequently heard these days in connection with reports from battle fronts, since there are too many indeterminable factors which may influence the land purchase program. Title for 22,953 acres was secured during the fiscal year June 1, 1943 to May 31, 1944, bringing the aggregate area to 749,998 acres. The average annual addition to the State Game Lands during the past five years was 29,291 acres. In the event that average can be maintained, the million-acre-mark would be reached within the next nine years.

The consideration paid for the 749,998 acres amounted to $2,894,556.27, or an average of $3.86 per acre. The cost of title and survey work averages about one dollar an acre, which, therefore, raises the aggregate cost of State Game Lands to approximately $3,694,000. Incidentally, $350,421.30 of this was paid from the Federal Aid in Wildlife Restoration Fund, but since the origin of that fund is the excise tax on sporting arms and ammunition, sportsmen supply the money. Consequently, sportsmen of Pennsylvania have invested approximately $3,964,000 in the acquisition of the State's splendid system of Game Lands, dedicated to their use for refuge and public hunting purposes.

209 Primary State Game Refuges, totalling 59,618 acres, are now maintained on State Game Lands, leaving 690,380 acres open to public hunting.

Within other publicly-owned lands, that is, Pennsylvania's 1,654,762 acres of State Forests and 447,156 acres comprising the Allegheny National Forest, the Game Commission maintains 84 Primary Refuges totalling 58,408 acres.

Four Game Propagation Farms, all purchased by the Commission, total 2,314 acres. Of course, hunting is not permitted on these farms.

Acreages in other game management areas established by the Commission and in operation on June 1, 1944, follow:

52 Auxiliary Refuge Projects (General Classification) total 44,814 acres of privately-owned land for which the Commission leases the hunting rights. Refuges total 11,544 acres, leaving 33,260 acres open to public hunting.

73 Cooperative Farm-Game Projects, all on privately-owned farms in 27 counties of the State, total 153,574 acres. Refuges established on these projects total 6,037 acres and safety zones 35,922 acres, no part of which is open to public hunting. Game is trapped from these areas for stocking open hunting territory.

The Commission still maintains 5 Dog Training Preserves, totalling 2,668 acres and 2 Archery Hunting Preserves totalling 1,985 acres. Three of these special preserves are located on State Game Lands.

All told, the Commission on May 31, 1944 had under its complete or partial control for wildlife purposes 1,038,287 acres, of which 835,225 acres are open to public hunting and 229,195 acres are closed, or 4 acres open for every acre closed.

*(Prepared by W. Gard. Conklin, June 15, 1944.)



Photo by Leo Luttringer, Jr.

Members of the Game Commission looking over state game lands No. 57 in Luzerne County, some portions of which lend themselves admirably for nesting and resting places for waterfowl.



Members of the Fairhope Rod and Gun Club.

The Western Association of State Game and Fish Commissioners which held its 24th annual convention at Phoenix, Arizona, recently favors (a) an extension of shooting hours for waterfowl in areas where damage is being done to cultivated crops, (b) a daily bag limit of 20 ducks, (c) the use of a limited number of live decoys in duck shooting, (d) a minimum of 90 days' shooting season or the maximum season allowed by the Migratory Bird Treaty Act.

Senator Gerald P. Nye, of North Dakota, and Senator Homer Ferguson, of Michigan, have been named by the Vice-President to the vacancies in the membership of the U. S. Senate Wildlife Committee caused by the death of Sen. McNary and the retirement of Senator Hughes. Senator Bennett Champ Clark, of Missouri, is the chairman of the committee.



Mr. Fink, Jr. was a lucky buck hunter also.

Had a Buckman Village woman been equipped with a rifle and a hunting license instead of a newspaper, she might have gotten herself a choice vension breakfast recently.

At it was, Mrs. Howard B. Stark simply sat and tried not to shriek as a deer pranced through her house at 1233 Pine Lane, Chester, Pa., upset a lot of furniture and knocked down the front of her porch.

Mrs. Stark was sitting in the dining room reading about the second front when one of the windows exploded practically in her face and showered glass all around.

"A paratrooper!" she thought and half expected a Commando raiding party to burst into the room.

By the time she realized that her uninvited guest was a somewhat excited deer, the animal had whisked into the living room, kicked over the furniture that stood in its way and plunged through an open door onto the porch.

The fact that the porch was enclosed bothered the deer not a bit. Lowering its head in a reasonably accurate facsimile of a battering ram, it charged the wooden framework and went through a section between the screen door and a window like tissue paper.

Neighbors heard the crash and ran out in time to see it speed across the street and try to butt its way ino another house. Failing in that, it did a Tarzan by leaping nimbly to a garage roof.

William King, 1236 Pine Lane, and other neighbors kept on eye on the cavorting beast while police were notified, but it refused to stick around. As Patrolman Boyle was speeding to the scene it abandoned the rooftop and disappeared down the street. Boyle caught a glimpse of it heading in the general direction of Linwood but that was all.

In leaping into Mrs. Stark's dining room, the deer had to reach a window six feet from the ground. So great was its momentum that it cleared an ironing board standing some distance from the sash before stumbling to the floor. Jagged glass cut its hide and bloodstains splattered over the room.

The woman's daughter, Mrs. Doris Ruhf, as well as a son Howard, 18, were also in the house at the time and testified as to the large size of the deer.

City police are debating whether to charge the invader with breaking and entering if caught. Meanwhile they are considering using radar to track it down

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The Littlestown Fish and Game Association recently decided to sponsor a serviceman's name plaque to be erected in honor of all the boys and girls from Littlestown and vicinity in the armed forces. It was decided to hold a carnival in the near future, the proceeds from which will help finance the project.



Mr. Schblein of Pittsburgh and a fine buck.

CHESTER CLUB ACTIVE

Some months ago the Chester County Rod and Gun Club Inc., which was founded May, 1915, decided to increase its membership by instituting a rabbit drive. "Buy a rabbit for one dollar and become a member of the club" . . . That was the slogan, and the dollars started to roll in like nobody's business. Contracts were placed with game breeders and rabbits were shipped to Chester County in crates until the number reached almost a thousand. The club is anxious to keep up its reputation as having the best rabbit county in Pennsylvania. At the recent meeting upwards of 200 more sportsmen became affiliated with the club, bringing its membership to nearly 1000.

Besides having the unique rabbit "drive," the club went still farther to have a better small game hunting county, and at an early Spring meeting passed a resolution to keep the fox in restraint in the game sections. Chester County is one of the two counties in Pennsylvania that has a special act to protect the fox. It's not a game act, however. The Chester County Club has taken such action that will become a benefit to the sportsmen without any undue hardship to those who enjoy fox hunting. In fact, officers of the club have had a number of meetings with the heads of the organized fox hunting clubs, and the leaders of this fraternity are quite willing to have the fox kept in control in the small game areas, but respectfully ask the gunners to remain off their property (of which they control upwards of 10,000 acres) if their intention is to shoot the animal that affords their pleasure.

"If foxes are too plentiful in the game territory, off our land, then keep them in control," said a leader of the organized fox hunting clubs, recently. He added: "In the last four months we have disposed of 17 gray foxes on our property—we don't want the gray fox."

Plans are now in the making of taking over 100 acres of land known as Brandywine Park, owned by the City of Coatesville. Already a portion of the land has been stocked with 50 cottontail rabbits, where they may propagate and be taken alive, in closed seasons, and liberated on public hunting land. Brandywine Park is located on the historic Brandywine Creek, three miles north of Coatesville. It was formerly known as Kurtz' Dam. The dam breast is all but gone, and the sportsmen, if the city leases the park to the club, hope to dredge the remainder of the lake, rebuild the breast, and make the site a place of beauty.

The club will also purchase bass and other fish to be placed in the Brandywine Creek at the park. Improvements will be made to the buildings, trap, rifle and revolver ranges will be installed. The present club site at Thorndale will be sold.

Stolen from Mr. M. J. Neskovich, 326 Wood Street, Reading, Pa., one Winchester Model No. 70, 22 Hornet with 330 Weaver Scope, Gun Number 28611.



Members of the Montgomery County Federation of Sportsmen's Clubs releasing pheasants reared by them in cooperation with the Commission.

The Game Conservation Society, of 1819 Broadway, New York, announces that the series of educational booklets on game conservation, originally published by More Game Birds in America, again are available to interested sportsmen and game breeders. The series includes a "Pheasant Manual," "Quail Manual," "Predator Control," "How to Make Game Birds Pay on the Farm," "More Upland Game," "More Waterfowl," and "Small Refuges for Waterfowl." Interested persons may obtain copies of these booklets by addressing the society at the above address.

BACK TRACKING

A farmer stopped cedar waxwings from eating his cherries by tying toy ballons on the limbs of the trees.

Help your Game Protector. He is just one man with a big job of preserving the game for thousands of others—you included.

The main difference between a sport and a sportsman is the *man* part of it.

It's a good thing for our reputation that *fish scales* aren't the weighing kind.

The best game law ever written is the one inscribed in a man's own conscience.

If molested, hibernating bears will frequently desert their cubs which subsequently freeze to death.

Another eye-witness saw a blacksnake in the act of swallowing a quail.

Operators of a grist mill were surprised to see a common house rat trying to pull a watersnake from under the rocks. The rat finally won the tug of war and then the battle was on and the rat won that also, backing at last down a hole pulling the still squirming snake after him.

A deputy Game Protector killed a large watersnake which had swallowed a starling, and another which was chasing a young rabbit along the bank of a stream. Still another held two ruffed grouse eggs, and a rattler contained a half grown rabbit.

A sportsman walking along the woods recently heard a young rabbit screaming and investigated. He found several young in the nest all of them cut and bleeding. While examining them and wondering what had attacked them a shrew stuck its head out of a hole in the nest. Two days later all the rabbits were gone.



This fine deer kill was made during the first two days of last season by a group of Salina hunters headed by Mickey W. Karaffa.



These men, left to right, Lt. George Eddy, Lt. John G. Sandt, Lt. Ralph LaPasta, made it possible for Maurice Sherman to take a plane trip in the pictured Stinson 105 for the purpose of dropping salt blocks in isolated sections of Division E in an effort to keep the deer from coming to the railroad seeking the salt from refrigerator cars.

FIELD NOTES

"I made an inspection of the sections of Washington County through which the recent tornado passed last Friday evening. The woods through which this storm passed are completely destroyed. Many den trees were knocked down, and although I saw no dead 'coons, undoubtedly many were killed. I saw two dead squirrels and one screech owl. Many corn fields were completely wiped out although the path of the storm was not over one quarter of a mile wide at any one place. I saw many quail in the sections traversed and do not believe that they were hurt in anyway."—Carl C. Stainbrook, Washington, Pa.

"Land Management Protector E. E. Smith and the Ridgway Rifle Club are preparing a number of nesting boxes for the wood ducks which annually visit the Clarion river sections in the neighborhood of Mr. Smith's charge. As many as 150 to 200 of these beautiful ducks have been observed coming into a nesting pond in the vicinity during the Fall of the year. It is very evident that considerable nesting is done by these ducks in the area aforementioned.

"The activity of Mr. Smith and the Ridgway Rifle Club in offering so splendid an inducement to the wood ducks in highly commendable and we hope the birds take advantage of their generosity."—Field Division Supervisor, M. E. Sherman, DuBois.

The Standard-Tilton Milling Company paid an employee today to stand on the bank of the Mississippi River and throw rocks at wild ducks. The flour mill had been shut down four times this week by ducks which dived into the river for food and were sucked into the plant's intake pipe.

"Last month a man in Wesleyville had several trees cut in his back yard. At first he believed some one was trying to spite him by cutting them. Deputy Gross told him he believed a beaver was the culprit and contacted me. We set a trap and sure enough the second night we caught a beaver.

"Mr. Beaver had to come up through underground drain that passed under a slaughterhouse and a school building and was staying underground in the vicinity. I trapped him just two blocks from the business section of town, where Ripley would not even dream a beaver would be found.

"One tree was an apple with a clothesline fastened to it just a couple of feet from a back porch. The animal was in poor condition and was so hungry he was willing to eat what he ordinarily would have passed up."—Game Protector Elmer D. Simpson, Cambridge Springs.

"Some years ago, or to be exact about this time of the year in 1921, my wife and I made a trip to the top of Berries Mountain, south of Millersburg. When on the top at a spot near Lover's Rock in a clump of laurel a ruffed grouse flew out and upon investigating discovered a nest of eggs. The number I cannot recall. We went to the spot a week or two later only to find that they were hatched out and gone. You can imagine my surprise when going to the same place last Friday, May 12, with a friend, and as I pointed out the spot to him I took a few steps toward the same clump of laurel when a grouse flew out with a roar and behold a nest of 10 eggs in it. This is such an unusual coincidence that I thought I should write and tell you of this unusual experience."—Frank O. Link, Millersburg.

"Located a grouse nest on May 22 at State Game Lands No. 92 that contained 11 eggs. Checked it on several occasions, the last time, May 30, the eggs had all hatched out and the old bird had left with her young."—Game Protector Joseph W. Kistner, Howard.

"On May 29 E. G. Newcomer, of English Center, killed a four foot rattlesnake near his home. He noticed the reptile seemed to have devoured something recently. Upon examining its stomach he found eight young rabbits—possibly a day old. He saved them and showed them to me. Apparently all the rabbits had been eaten at the same time—shortly before the snake was killed."—R. H. Morningstar, English Center.

"On May 10 while checking over damage done by a forest fire to State Game Lands No. 119 in Luzerne County, I came upon 2 deer feeding upon what little browse was left. One of them was a large doe, the other was a last year's fawn. At first glance I thought the larger one had been to a barber shop recently because she looked as if someone had used clippers or shears to cut out large spots of hair, making her look like a spotted cow. While holding the animal's attention I was able to get close enough to see that she was a victim of the recent forest fire, and what I thought was a poor haircut, turned out to be a very close singe in spots. Otherwise she was in good shape."—Game Protector Peter A. Zikosky, Minooka.

"We have had several bad fires on the Game Lands this spring. They burned over 600 acres destroying over 4000 pine trees, and 1000 feet of rail fence with at least 2000 shrubs and vines planted along it. Many brush piles and shelters also were burned. A fire warden saw a woodchuck carrying its young from a burning area. It carried them by the back of the neck the same way a cat carries its young. It worked slowly and set the young down and rested at times as they were good-sized and seemed to be about all she could carry."

"At this time all food shrubs and trees look as if they will have a heavy crop."—Game Protector Clyde W. Decker, Clearfield.

"In less than three weeks eight deer were killed on a one mile stretch of track near Carmen. The highway parallels the railroad at that point, and automobiles accounted for one animal and the railroad the other seven. Many deer are killed between Ridgway and Brockway but not often is the kill as heavy at any one point as it was near Carmen."—Game Protector Earl E. Smith, Ridgway.

"On June 2, while fishing along the West Branch of Pine Creek, Potter County, I observed a commotion on the opposite bank of the stream and to my surprise soon recognized the lithe form of a mink dragging a watersnake twice its length. The snake had just been killed as there were three or four wounds on its body from which blood was streaming. Apparently the reptile had given the mink quite a battle before it was killed. I watched the mink drag its victim into the tangled roots of an over-hanging bank which evidently was the hidden retreat of her young.

"Like all the predacious wild creatures, we usually hear only the condemnatory things about them. In this instance the mink perhaps performed a worthy act in destroying at least one water snake, which ought to be pleasing news to the fishermen."—Field Division Supervisor, M. E. Sherman, DuBois.

"Recently while patrolling I observed a very large bear. I had plenty of time to observe this animal as it came into an open field for it had no idea any person was near by. At the same time a short distance away four deer were grazing, and near me on a woods path a groundhog was carrying a young one in her mouth, evidently moving from one den to another."—Game Protector Claude B. Kelsey, Port Allegany.

"Foxes, apparently teaching their young to hunt, have killed more than 170 chickens in three nights at a local chicken farm. The fowl were mostly February chicks, weighing about 3 lbs. The birds are in ranch pens on a nearby hillside. Traps have been set."—Game Protector Paul L. Failor, Mt. Pocono.

"I have been noticing a great many squirrels the last three weeks, and from all indications there will be a large crop of nuts of all kinds."—Game Protector D. H. Franklin, Upper Strasburg.

"On May 17 I killed a large yellow rattlesnake in the Barrens that had apparently just come out of its den. I opened it and found plenty of fat and 12 sacks each of which would have produced a young snake later. There was no evidence of young at the time, but each sack was filled with a yellow liquid like the yolk of an egg."—Game Protector Elmer L. Pilling, Philipsburg.

"I was recently conferring with a farmer relative to the game on his farm when he related the following incident: He had a small house dog, which continually followed him while plowing. Hearing the dog howling, he immediately went to investigate, only to find a nice ringneck cock bird giving him a good flogging."—Game Protector Lester E. Sheaffer, Uniontown.

"On Friday, May 5, I was called to Fogelsville to pick up a dead doe deer which was killed on the Route 22 by a truck. Upon opening the deer it was found to be carrying two fawns. On Monday, May 15, I was called to Trexlertown to again pick up a dead doe which was killed on Route 220. This doe was a yearling, carrying one fawn. Both deer were killed in the heart of the agricultural section of Lehigh County and are two of eight which have been seen in the section this Spring. The nearest deer range is the Blue Mountain which is about fourteen miles away. Recently deer have been seen in the city limits of Allentown."—Game Protector James A. Brown, Allentown.

"On May 7 a large number of members of the Warren Field and Stream Sportsmen's Club assisted men in planting 7,650 seedlings on Game Lands No. 143. They included 500 osage orange, 400 dogwood, 250 wild sweet crabapple, 2500 Japanese rose, 2000 mulberry and 2000 hawthorn.

"Last week the maintenance crew on the highway saw a black bear at Hague Run on Game Lands No. 86. It was ambling along on the railroad track near the road. When the crew stopped the truck to see the animal, old bruin decided to look at the crew so he stopped and played around for a couple minutes then wandered away toward the river."—Game Protector George H. Burdick, Tidioute.

"On Friday, May 5, in company with Mr. Ralph Amon of Jamestown, we dug out a den of red foxes in the center of a large field of wheat on the farm of Mr. Frank Porter. This den was located on a large knoll and had seven different openings, all of which appeared to be well cleaned out and used. The field for a distance of about 18 feet all around these different openings was strewn with the bones and remains of small birds and animals, and checking closely these remains, as well as many more found within the different tunnels of the den proper, we accounted for the late death of eight cottontail rabbits, two ringneck pheasants, two fox squirrels, and many other small birds. After several hours of digging, we had the pleasurable reward of capturing seven young half-grown foxes, and the old mother fox, as well."—Game Protector H. C. Sutherland, Jamestown, Pa.

Mr. Morrison, a showman in the wild animal game, showed me an unusual animal the other day. Tail like a raccoon, body yellow, wide at back, narrow at front about like a muskrat, legs shorter than a raccoon, feet four-toed with a thumb; head about the size of a mink, not so pointed; ears like a fox but no hair and more of a side angle; eyes large and black with no pupil. Reported to have been caught in a stonepile in Indiana. When disturbed it made like a raccoon. He guessed it might be a cross between a grey fox and a raccoon. What do you think?

"From all indications we are going to have a bumper crop of mast in this section. No frost to kill the fruit this Spring and the wet spell came after most fruits were set, so it did no damage."—Game Protector R. P. Schmid, Slippery Rock.

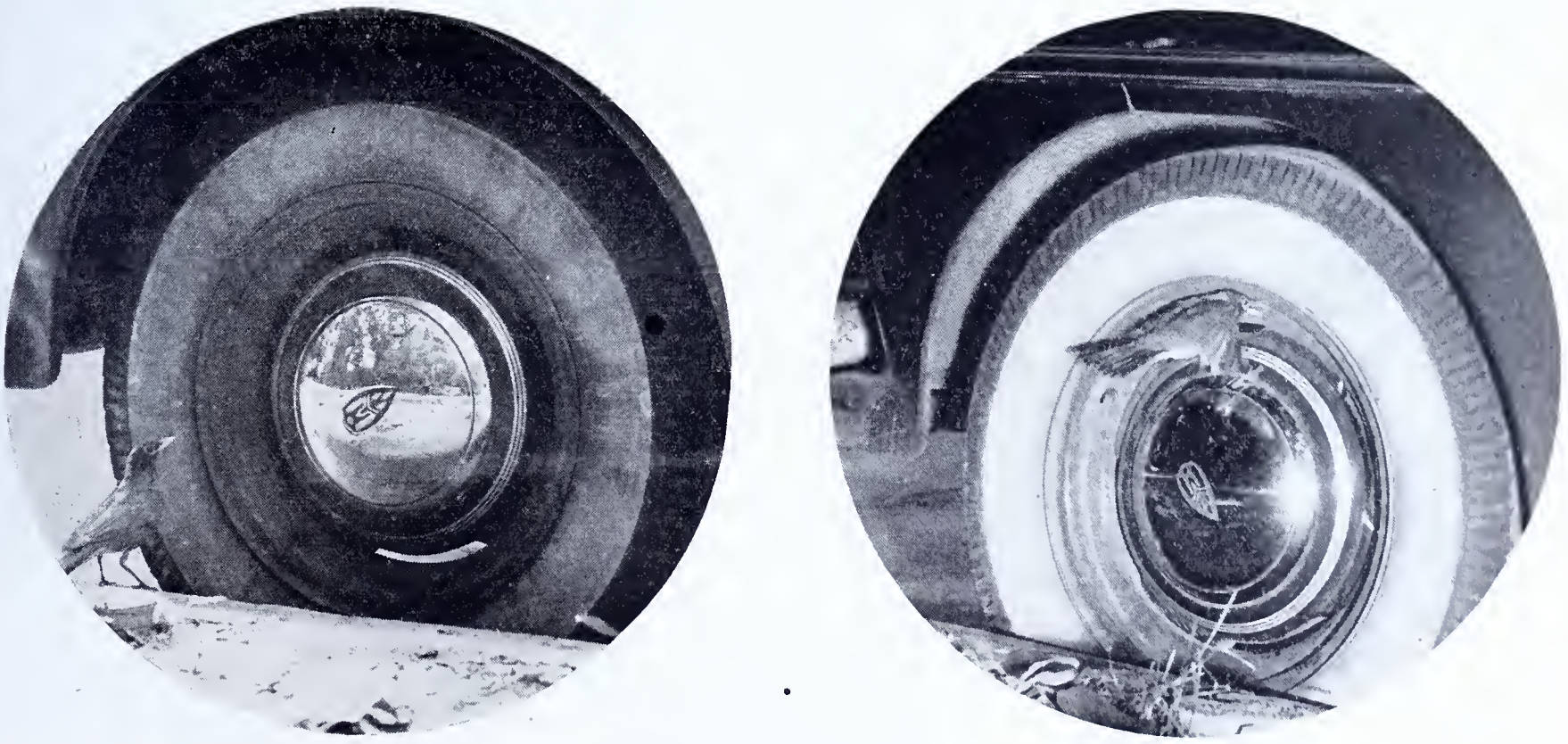


Photo courtesy Philadelphia Record

When a robin saw his own reflection in the hub cap of an auto, he thought it was a rival trying to lure his mate and immediately flew to the attack.



Photo courtesy Grand Rapids Press.

Purple martins and swallows in great flocks roosting on telephone wire while gathering for migration.

FIELD NOTES—*Continued*

"A special fish warden killed a big blacksnake this past week. He thought it looked extra fat and upon examining it found a 2-foot garter snake in it."—Acting Game Protector Wm. Crist, Chambersburg.

"While the Allies were getting ready for an invasion of the French coast we had an invasion in the upper end of Northumberland County of a BEAR.

"Mr. Bruin not only invaded our county but proceeded to declare war upon an apiary owned by The Merrill Bee and Honey Company of Muncy totally destroying 21 of 45 hives.

"During my more than twenty years as a game protector in charge of Northumberland and Montour Counties this was the first bear to have been seen in either of the two counties. Mr. Harvey Merrill, Manager of the Bee and Honey Company, stated that to his knowledge he never knew of bear to have been in that part of Northumberland County until last summer when an old female and two cubs were sighted in the same vicinity on May 29. A son of Mr. Merrill's while on watch at the apairy shot at the animal when it came back for additional honey on the 30th.

"Now comes Mr. Thomas Hoffman, a farmer of Point T. S. Northumberland County, who resides along Montour Ridge about three miles north of Northumberland, with a report that a bear skinned one of the large apple trees in his orchard. While this animal has not been sighted, all the evidence points to bear damage.

"Twenty years ago we had no deer in Northumberland County; nor beavers—in fact only a limited amount of small game. Today we have one of the best small game counties in the State, with a large number of deer and beavers and now even a few bears. I will let you know when we have our first Elk for then we will have about everything. —Game Protector Bruce P. Yeager, Northumberland.

Probably the deepest diving duck is the Old Squaw. They have been accidentally caught in fish nets 180 feet below the surface.

Out of the total of 642,186 deer and 26,181 elk killed during the 1943-44 hunting season, 238,362 hides were donated by hunters throughout the United States to be channeled into the leather trade for conversion into military use.

"Mac owns and operates a cigar store and poolroom in North Carolina. Last Fall the scarcity of shot gun shells in this locality, as in all other localities, caused plenty of concern among the hunters. Game was plentiful which made the situation all the worse.

"Men who never before had thought of doing anything in an underhand way were searching their minds for a way to get shells. There was a prominent M.D. who had laid by five cases of shot gun shells, but he passed on to his Great Reward and had no need for the shells. The Boys all knew that Mac hunted and fished with the Doctor and decided he was the logical man to contact the widow and find out if she wouldn't like to dispose of the shells. Their bids ranged high and Mac finally agreed to see her and let the Boys know her decision.

"Mac is quite a character and conceiving this a wonderful opportunity to have some fun went to work immediately. He gathered up several empty shot gun shell cases and filled them with bricks. He had the five cases ready and nailed them as no other cases were ever nailed. The stage being set, Mac started to dispose of the cases. He was very secretive about the whole affair. He called one of the fellows to the side one evening and told him in a whisper that he could have one of the cases for $40. The man was in his glory and promptly handed Mac two twenties. After it became dark, Mac helped him shoulder his treasure, let him out the back door and the poor fellow carried the lot home six blocks away. Naturally, the fellow couldn't wait to look at his precious package and started to tear it open. It must have been quite a job to get the lid off and when he did, the first thing he saw was a paper which said, "Never deal in any black market." The man rushed to the phone and called Mac and told him in no pleasant terms about this trickery, whereupon Mac insisted he knew nothing about it and said, "If that is true, I'm mighty glad I got my money out of them." The joke was too good even for the fellow who got stung and laughed it off with Mac who gave him his money back. The first fellow was then let in on the disposition of the other four cases and they sat back and laughed at the eagerness with which the others gobbled up what they thought was something to be had."—Former Game Protector W. W. Britton, P. O. Box 674, Washington, North Carolina.



These orphaned baby coons take to the bottle readily.

OFFICIAL NOTICE

WHEREAS, The Pennsylvania Game Commission is of the opinion that for the better protection of game it is temporarily desirable and necessary to increase certain bounty rates, and to pay rewards or bounties to encourage the killing of certain destructive owls, all throughout the Commonwealth;

THEREFORE, BE IT RESOLVED, That the Pennsylvania Game Commission, acting under the powers and authority vested in it by the provisions of Article XI, Sections 1101 and 1102, of the Act of Assembly approved June 3, 1937, P. L. 1225, entitled, "An Act concerning game and other wild birds and wild animals; and amending, revising, consolidating, and changing the law relating thereto", by resolution adopted this 6th day of May, 1944, changes the rates of bounty heretofore paid for the killing of certain animals, and adds certain birds to the bounty list, all such rates to become effective July 15, 1944 and continue for a period of one year expiring July 15, 1945, inclusive, said rates of payment to be made for specified birds and animals killed in a wild state in the Commonwealth only during said period and when presented in the manner and under the conditions stipulated in the Act aforesaid, the new rates of payment to be as follows:

1. GRAY FOX—That the bounty on the gray fox be continued at $4.00 up to the end of the period indicated, with no bounty on the red fox.

2. WEASEL—That the bounty on the weasel be increased from 50c to $1.00, for all weasels killed during the period indicated.

3. GOSHAWK— That the bounty on the goshawk be continued at $2.00 for adults and $1.00 for fledglings, for all goshawks killed during the period indicated.

4. GREAT-HORNED OWL—That a bounty of $4.00 be paid for adult great-horned owls and $2.00 for fledglings, for all great-horned owls killed during the period indicated.

BE IT FURTHER RESOLVED, That the foregoing resolution shall be duly published in accordance with the provisions of Section 1102 of Article XI of the Act aforesaid in the June and July 1944 issues of the PENNSYLVANIA GAME NEWS, as required, and this change in the rate of bounties to be brought to the attention of the public through other available channels, the Executive Director of the Commission being hereby authorized and directed to certify the foregoing as and for the act of the Pennsylvania Game Commission.

SETH GORDON,
Executive Director.

Dr. A. B. Champlain of the Pennsylvania Department of Agriculture killed a blacksnake in Dauphin County in the act of swallowing a fair-sized young rabbit. Noticing a bulge in the snake's middle he cut it open and found another young rabbit just about the same size.

PENNSYLVANIA GAME COMMISSION

OFFICIAL 1944 OPEN SEASONS AND BAG LIMITS

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. On November 1 no hunting of any kind before 9 A. M. With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. (See Special Regulations for hours to set traps in open counties.) Raccoons may be hunted at night, with a noon-to-noon daily limit.

UPLAND GAME (Small game possession limit three days' bag)	Bag Limits Day	Season	Seasons Open	Close
Ruffed Grouse	2	10	Nov. 1	Nov. 30
Quail, Bobwhite	5	15	Nov. 1	Nov. 30
Hungarian Partridges (Statewide)	2	8	Nov. 1	Nov. 30
Wild Turkeys (See 9 counties closed below)*	1	1	Nov. 1	Nov. 30
Ringneck Pheasants, males only	2	12	Nov. 1	Nov. 30
Rabbits, Cottontail	5	25	Nov. 1	Nov. 30
Squirrels, Gray, Black and Fox (combined kinds)	6	24	Nov. 1	Nov. 30
Squirrels, Red	Unlimited		Nov. 1	Sept. 30, 1945
Grackles (commonly called Blackbirds)	Unprotected until Sept. 30, 1945			
Hares (Snowshoe Rabbits)	2	6	Nov. 15	Nov. 22
Raccoons, by individual or hunting party*	4	20	Oct. 23	Feb. 1, 1945
Raccoons, by trapping (Statewide)*		20	Nov. 1	Feb. 1, 1945
Woodchucks (Groundhogs)	5	Unlimited	July 1	Sept. 30
Bear, over one year old by individual	1	1	Nov. 27	Nov. 30
Bear, over one year old by hunting party of three or more	2	2	Nov. 27	Nov. 30
Deer, male with two or more points to one antler	1	1	Dec. 1	Dec. 16
Deer, as above, by hunting party of six or more	6	6	Dec. 1	Dec. 16

NO OPEN SEASON—Sharp-tailed Grouse, Doves, Cub Bears, Antlerless Deer and Elk.

MIGRATORY GAME BIRDS—(Seasons fixed by Federal Government. For species and regulations see separate summary issued with license.)

FUR-BEARERS—(See note under Special Regulations)*

Minks and Skunks*	Unlimited	Nov. 1	Feb. 1, 1945
Otters*	Unlimited	Nov. 1	Feb. 1, 1945
Muskrats (By traps only)*	Unlimited	Dec. 1	Feb. 1, 1945
Beavers (Traps only. See 31 counties closed below)*	2	Feb. 15	Mar. 1, 1945
Opossums	Unprotected until September 30, 1945		

*SPECIAL REGULATIONS

Turkeys—Counties of Clarion, Forest, Jefferson, McKean, Potter, Snyder, Tioga, Warren and Westmoreland closed.

Raccoon Hunting—The season begins at noon on the opening date, and ends at same hour on the closing date.

Raccoon Trapping—Traps not to be placed before 9 A. M. on the opening date (see instructions below concerning lifting traps on closing date).

Beavers—No trapping in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bucks, Cambria, Cumberland, Delaware, Fayette, Franklin, Fulton, Greene, Huntingdon, Indiana, Juniata, Lawrence, Lebanon, Lehigh, Mercer, Mifflin, Montgomery, Northampton, Perry, Philadelphia, Somerset, Washington, Westmoreland, and York. **Non-Residents may not trap beavers.** One person may set, tend or operate 10 traps only. Traps must not be placed closer than 15 feet from the waterline on any established beaver houses. Pelts must be tagged within 10 days after season, and may not be sold or otherwise disposed of until properly tagged. Present them to Protector in District or County where trapped.

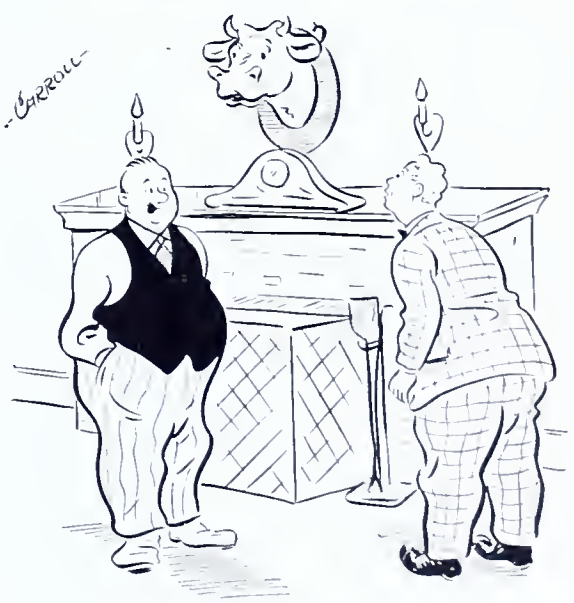
Trapping—Traps for fur-bearers and raccoons not to be placed before 9 A. M. on Nov. 1, or before 8 A. M. on any later opening date for trapping. The season on the last date indicated for trapping closes at 12 o'clock noon to permit removal of animals caught on the last night of the season and lifting traps by daylight.

Snares—May be used without springpoles for taking predators from December 16 to March 31, 1945, in all counties except Allegheny, Armstrong, Beaver, Berks, Bucks, Cambria, Chester, Dauphin, Delaware, Fayette, Greene, Indiana, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Somerset, Washington, Westmoreland and York.

(AS FIXED BY COMMISSION AT MEETING ON MAY 6, 1944)



"Thanks for the medicine Doc, and I'd like you to see MY trophy room sometime.



"Did I ever tell you about the first time I ever went hunting?"

CANADA IS BIG WATERFOWL NURSERY



Photo courtesy U. S. Fish & Wildlife Service.
White-fronted Geese.

U. S. sportsmen owe a great debt to the Government of Canada for its part in quadrupling the continental population of migratory waterfowl, Dr. Ira N. Gabrielson, director of the Fish and Wildlife Service, Department of the Interior, said today.

"Canada is the nursery for many of the ducks, geese, swans, and other waterfowl which make their winter homes in the United States, and if the Federal government of Canada, as well as the governments of the Provinces, had not cooperated so wholeheartedly in the work of conservationists both in the United States and Canada, we could not have alleviated the so-called 'duck depression' as rapidly as was done."

Nature has done more to bring back the migratory waterfowl population than conservationists could ever do, Dr. Gabrielson declared, pointing out that a severe and lasting drought in the Provinces where most of the waterfowl breed had done much to cause the decline in numbers. Since 1938 these areas have had plenty of precipitation and many of the ponds, lakes, and marshes have gotten back to their natural condition.

"Canada has done whatever she could to assist Nature in bringing the birds back. Millions of acres have been set aside as refuges, especially important in those sections where civilization has interfered with the natural conditions necessary to the life of waterfowl. A total of 84 bird sanctuaries has been established in all the provinces and in the Northwest Territory. In the western part of Canada some 1,300,000 acres of community pastures are also bird refuges. In addition Canada has many Federal and Provincial parks in which birds receive full protection. Tremendous areas embracing 720,000 square miles have been set aside in the Northwest Territory as game sanctuaries and native hunting preserves and these give some protection to the breeding birds," Dr. Gabrielson said.

"Under the Prairie Farm Rehabilitation Act, the Canadian Department of Agriculture has completed more than 20,000 water projects in the Prairie Provinces of Manitoba, Saskatchewan, and Alberta. These range in size from small stock-watering ponds to very large storage reservoirs and lakes. This series of projects was begun less than ten years ago but apparently already is having a beneficial effect on the waterfowl population.

"Canada, through the enforcement of its version of our own Migratory Bird Treaty Act, through cooperation with private sportsmen's organizations, through scientific investigation into causes of waterfowl mortality, and through predator control has also aided in the comeback of the waterfowl.

"Certainly the Fish and Wildlife Service could have asked for no more cooperation than Canada has always given it," Dr. Gabrielson said. "It has been a good neighbor indeed."

BOOK REVIEWS

Dune Boy, By Edwin Way Teale—Published by Dodd, Mead & Company, New York—Price $3.00

"Dune Boy" is an adventurous return to the June of life—to that golden world which lies about us in our youth. It is the natural history of a boy. It is also more. It is the story of Lone Oak and of the two remarkable old people who lived there. In the hilarious tale of the mouse pelts, the curiously moving account of the death of a tree, the story of the slowest man on earth, there is humor and drama and a deep understanding of human nature. The same sensitiveness to the beauty of the outdoor world, the same stimulating freshness of viewpoint which attracted readers to this author's previous books, NEAR HORIZONS, GRASSROOT JUNGLES, and THE GOLDEN THRONG—volumes which last Spring were awarded the John Burroughs Medal as outstanding works in the natural history field—are also found in full measure in DUNE BOY.

Great Wings and Small, by Frances E. Clarke —Published by Macmillan Co., New York—Price $2.50

The lovers of short stories will certainly be neglecting a valuable contribution to his or her nature library if they fail to include this volume. It presents in the most entertaining manner a series of nature stories by 29 of the countries outstanding naturalist authors. Contents of the book includes "Vanishing Americans" by Jacob Bates Abbott; "Our New Neighbors at Ponkapog" by Thomas Bailey Aldrich; "Birds That Are Your Friends" by Oren Arnold; "Argus Pheasants" by William Beebe; "The Return Of The Birds" by John Burroughs; "Everglades National Park" by Lorine Letcher Butler; "The Wild Black Duck" by Daniel Chase; "The Mystery of Migration" by Alan Devoe; "The Last American" by Walter Prichard Eaton; "Silver Swallow" by Hubert Evans; "Fine Feathers" by Hal G. Evarts; "Castle In The Sky" by Kenneth Gilbert; "Bird Music" by W. H. Hudson; "The Island of Penguins" a. A Modern Gulliver, b. Setting Up House, by Cherry Kearton; "Baby Birds" by Olive Thorne Miller; "Our Model Canada Goose" by Jack Miner; "A Paradise of Birds" by John Muir; "Blood Money for Eagles" by Arthur Newton Pack; "The Case of the Brown Pelican" by T. Gilbert Pearson; "The Raven" by Gene Stratton Porter; "Will America Save Its Waterfowl" by Edward A. Preble; "The Stranger" by Dan Russell, "Wild Gallantry" by Archibald Rutledge; "Wild Swan" by Herbert Ravenel Sass. "Silverspot" by Ernest Thompson Seton; "Ol Ring Neck" by Don Cameron Shafer; "Wings Against the Sky" by F. G. Turnbull; "Baker's Blue-Jay Yarn" by Mark Twain and "Feathered Philosophers" by Mabel Osgood Wright.

Once in a while, in every field, there is a book written which is down to earth and written in plain talk. Such a book is "Talk About Wildlife" by Ross O. Stevens. This was written with the idea of getting across, not only to the technicians but to the layman as well, the basic truths and fundamentals about our wildlife. He presents the problems just as they are, and along with them outlines the way certain states have solved some of these problems. He also points out the pitfalls which are so often the downfall of a well planned conservation program and suggests ways in which they can be circumvented.

This work is definitely not a panacea for the ills besetting our wildlife restoration, but it is thought provoking and directly to the point. Mr. Stevens does not cloud the issues with flowery phrases or weak statements, nor does he soften the blows when blows are needed. It is a most valuable and refreshing contribution to the field and one which should be read by every conservationist whether he is a technician or layman.—Published by The Bynum Printing Co., Raleigh, N. C. Regular edition, $3.50; Student's edition, $2.25.

HUNTING A BIG BUSINESS—$13,000,000 IN LICENSES

Sportsmen spent $13,598,423 for 8,091,187 hunting licenses during the 1942-43 season, the Fish and Wildlife Service reported to Secretary of the Interior Harold L. Ickes today upon the completion of a summary based on figures supplied by the States. These totals represent a decrease of 441,167 in licenses and $323,551 in fees as compared with the preceding year, it was announced.

In revenue received, Pennsylvania led all other States with $1,406,310. Next in line was Michigan with $1,161,808, followed by New York with $775,299; Ohio, $698,376; California, $638,577; Minnesota, $514,830; Illinois, $499,475; South Dakota, $473,632; Colorado, $431,772; and Washington, $414,915.

In number of licenses issued, Michigan topped the list with 795,251, followed by Pennsylvania with 648,620; Ohio, 553,072; New York, 552,004; Indiana, 376,949; Minnesota, 371,082; Illinois, 323,587; California, 266,909; Washington, 264,526; and Wisconsin, 256,720.

Since the total of 8,091,187 licenses includes 565,392 big game licenses, in addition to small game licenses, required by Colorado, Michigan, Minnesota, New York, South Dakota, Utah and Wyoming, there is a duplication to an unknown extent in the number of hunters in these States. Many big game hunters undoubtedly also purchased small game licenses, and when that occurred, two license sales were recorded for each hunter.

Total license sales also include 1,471,254 combination hunting and fishing licenses which were sold by States having a license system that makes it necessary for sportsmen to purchase combination licenses. Many of the license purchasers were no doubt anglers who did not wish to hunt, but the number is not known.

Federal migratory-bird hunting stamps, commonly called "duck stamps", were issued to 1,380,092 sportsmen for use during the 1942-43 season. This figure is only 57,128 less than the number sold during the preceding year. The Federal stamps, at $1 each, are required of all waterfowl hunters over 16 years of age, in addition to State licenses. The total paid for State licenses and Federal duck stamps amounted to $14,978,515.

Licenses authorizing the trapping of furbearers were granted to 2,440,214 persons, at a cost of $328,907. However, many of them were combination licenses which the holders obtained in order to hunt or fish, it was pointed out.

The appended tabulation summarizes by States the number of hunting licenses and duck stamps issued and the revenue collected.

HUNTING LICENSES AND DUCK STAMP SALES

July 1, 1942 to June 30, 1943

State	Resident	Non-Res.	Total Licenses	Fees Paid by Hunters	Federal Duck-Stamps
Alabama	120,524	608	121,132	$191,914	6,924
Arizona	36,582	572	37,154	111,217	3,535
Arkansas	62,889	1,791	64,680	122,319	24,266
California	265,082	1,827	266,909	638,577	91,619
Colorado	193,021	2,257	195,278	431,772	23,803
Connecticut	37,194	289	37,483	119,397	8,501
Delaware	15,489	137	15,626	20,605	3,232
Florida	64,666	430	65,096	170,032	12,886
Georgia	62,064	488	62,552	114,109	2,874
Idaho	120,481	1,016	121,497	136,696	25,265
Illinois	322,543	1,044	323,587	499,475	83,391
Indiana	376,269	680	376,949	291,212	24,157
Iowa	219,880	460	220,340	201,301	41,739
Kansas	97,312	361	97,673	99,839	36,226
Kentucky	75,381	1,670	77,051	138,122	5,065
Louisiana	129,763	1,246	131,009	137,683	44,252
Maine	100,620	5,161	105,781	188,222	10,770
Maryland	80,064	1,966	82,030	196,814	12,356
Massachusetts	83,117	600	83,717	162,226	20,135
Michigan	788,669	6,582	795,251	1,161,808	108,663
Minnesota	370,469	613	371,082	514,830	110,986
Mississippi	130,101	547	130,648	227,681	8,902
Missouri	208,275	703	208,978	297,024	40,834
Montana	103,607	698	104,305	165,842	26,515
Nebraska	126,878	1,244	128,122	136,750	28,501
Nevada	13,835	2,452	16,287	59,167	5,881
New Hampshire	54,754	2,880	57,634	100,505	4,074
New Jersey	121,897	1,224	123,121	245,684	24,991
New Mexico	24,244	1,264	25,508	109,317	4,255
New York	545,966	6,038	552,004	775,299	46,344
North Carolina	138,826	1,519	140,345	247,780	7,828
North Dakota	53,641	405	54,046	90,587	27,330
Ohio	552,602	470	553,072	698,376	27,631
Oklahoma	97,226	503	97,729	126,627	29,443
Oregon	107,027	1,243	108,270	358,683	32,806
Pennsylvania	640,230	8,390	648,620	1,406,310	34,604
Rhode Island	9,457	97	9,554	22,388	3,353
South Carolina	83,933	1,999	85,932	153,971	5,503
South Dakota	94,956	15,838	110,794	473,632	38,926
Tennessee	133,299	469	133,768	137,623	12,160
Texas	120,393	303	120,696	248,361	79,577
Utah	87,374	6,220	93,594	385,747	18,046
Vermont	44,861	2,160	47,021	77,597	3,642
Virginia	150,590	1,760	152,350	197,752	11,469
Washington	264,497	29	264,526	414,915	59,683
West Virginia	163,569	641	164,210	169,979	1,528
Wisconsin	256,161	559	256,720	399,206	83,527
Wyoming	39,428	1,519	40,947	201,410	7,522
Alaska	10,064	445	10,509	22,040	3,308
D. C.	.....	.....	.....	.....	1,212
Hawaii	.....	.....	.....	.....	52
Totals	7,999,770	91,417	8,091,187	$13,598,423	1,380,092

The Western Pennsylvania Sportsmen's Club recently presented the resolution to the Allegheny County Sportsmen's League asking that all hunting be prohibited the Monday, Tuesday and Wednesday of Election Week each November to prove that they are willing to give up their shooting privileges on Election Day each year. According to Frank E. Schreiber, Secretary, they are tired of being criticized for going hunting instead of using their right of franchise. The resolution called for a return of the day hereinbefore mentioned in the October preceding November.

MORE ABOUT JUNIOR CLUBS

(Continued from Page 17)

question: Have I, in the past, done all I could to not only support my Club but have I brought in new and young blood to revive it's sometimes feeble pulse of life?"

Mr. Ekvall is a conservationist in more ways than one and the following suggestion embodied in a recent letter to his fellow associates merits serious thought.

"Somewhere in Greece, France or any of the conquered lands, yes, without any doubt, somewhere a child died today, of starvation . . . A single piece of bread would have kept life in that pain wracked body . . . Would you have wasted that piece of life giving bread or would you have saved it for the one who really needed it? Why of course we all know the answer . . . Then, fellows, let's not take the meat or cheese out of the sandwichs during the lunch time at this next meeting which will be held Tuesday, March 7th, in Carrick Eagles Hall, as usual. After every meeting Joe Wingertsahn has swept up a basket of bread that has been thrown on the floor after having the sandwich contents removed. He asked me to mention a few words about it . . . So let's all remember that there are people actually dying every day for lack of one slice of bread. Remembering that, we won't even drop enough crumbs for the Carrick Eagle mice to live on . . . Thanks."



"Sorry Pop. I didn't know it was loaded."

Friends of the Land

(Continued from page 15)



This verdant land is an example of well-cared-for terrain.

is necessary to have an over all picture integrating all phases of Conservation before a thorough job can be done. "Friends of the Land" is an association designed to integrate into just such an overall picture each and every phase of conservation and to create a public consciousness of the basic relation of soil, and water to our every day lives.

Along with sportsmen and all lovers of wild life, "Friends of the Land" recognizes that true conservation with its proper adjustments of soil, water, and plant life is the only way to produce a suitable habitat for our friends of fins, fur and feathers. The importance of balancing nature and giving every species its place in the sun is recognized as an essential part of the conservation program. In this connection, the smaller types of life such as bees, worms, and microbes likewise must not be forgotten for they too modify the landscape in many favorable ways. So then the objectives of "Friends of the Land" fit directly into the plans of all who love the out-of-doors and the Society is actively cooperating with the various agencies and groups who want to do something for our wildlife.

Their objectives are clearly defined:

1. Foster investigation, research and experimentation in the science of land and water use;

2. Assemble information regarding the economic and social need for protecting our lands and water;

3. Encourage the practice of land and water conservation by all;

4. Promote educational and other measures tending to the accomplishments of these objectives;

5. Carry on educational projects;

6. Cooperate fully with other national, regional, state and local societies to promote conservation.

7. Promote the insertion of the conservation viewpoint into the classroom work of our schools.

8. Arouse an apathetic and self-satisfied nation to the realization of the tragic consequences which are certain to follow the continued devastation of our soil and water resources by wind and water erosion and the exhaustion of underground and surface water supplies.

9. Encourage farmers to make the most of the opportunities they have under the various state enabling acts to band together in locally organized and controlled groups devoted to every kind of soil conservation.

Now, just how is "Friends of the Land" going about this tremendous job?

Much of the inspirational and education work to date has been accomplished through meetings. "Friends of the Land" holds one annual meeting in some important agricultural and industrial center in its attempt to teach the importance of the overall consideration of the wise use of all our natural resources. Each year it holds several sectional meetings. Our members are urged to attend these meetings and participate in them. "Friends of the Land" offers its members more than a passive participation. Our members can and do take an active part in all of its undertakings. We bring together at each meeting many of the most distinguished and important authorities in the various phases of conservation. Local chapters of the Society are being formed in many places. These groups adopt projects and arrange programs of authoritative lectures by means of which each of their members secures a comprehensive respect for the irrevocable trinity—Rain, Soil, and Man—in their eternal relationship.

The organization is supported by voluntary contributions from individuals, clubs and organizations which entitle the donors to membership in the society. The memberships begin at $5.00. Other memberships of $10.00, $15.00, $25.00 and up are available and these are necessary to carry on the work. Most of those working to further the organization's program are volunteers paying their own expenses, with no other reward than the satisfaction of seeing steps taken to preserve the land for the future.

So, here we have an agency which is working for the general good of all for the conservation of all our natural resources and it is these resources which spell either power or oblivion in the world to come.

On May 1 "Friends of the Land" established national headquarters at Columbus, Ohio, with Ollie Fink as the executive secretary.

"Mr. Fink is an able young man who has contributed much to the advancement of conservation education through his direction of the conservation Laboratory in connection with his labors in the Muckingum Conservancy projects in Ohio.

"The establishment of the national headquarters was made possible through the cooperation of the Charles Lathrop Pack Forestry Foundation of Washington, D. C.

"I have always looked forward to an article on Wildlife Tragedies such as the one written by you in the May 1944 issue of *Read Magazine*. I enjoyed that article immensely and hope you will publish more. It also dealt with conservation which I think we should all practice. One incident that happened around here concerned the thrush We have chickens in the backyard and whenever we feed them the song birds like to come down after we are gone and have a feast themselves. One day as my mother was getting ready to feed the fowl she noticed that all were clustered around one corner pecking at something. Closer investigation revealed they were pecking at a thrush whose bill was caught in the wire. Mother released it and found that the chickens had pecked a hole in its stomach and its claws almost entirely off. The bird died two days later.—Charles Schultz, Jr., Johnstown, Pa.



Mr. Rose and his 'coon dog over which he has taken the 14 'coons and two foxes shown here.

Baying coon dogs breaking away for the first line in a phase of America's oldest rural sports. These pictures snapped at the John Wenger farm, Denver, mark the semi-annual field trials sponsored by the Lancaster County Coon Club and attended by dog owners from this and adjacent states.

Photos by Charles S. Rice, New Holland, Pa.
in the Sunday News, Lancaster, Pa.

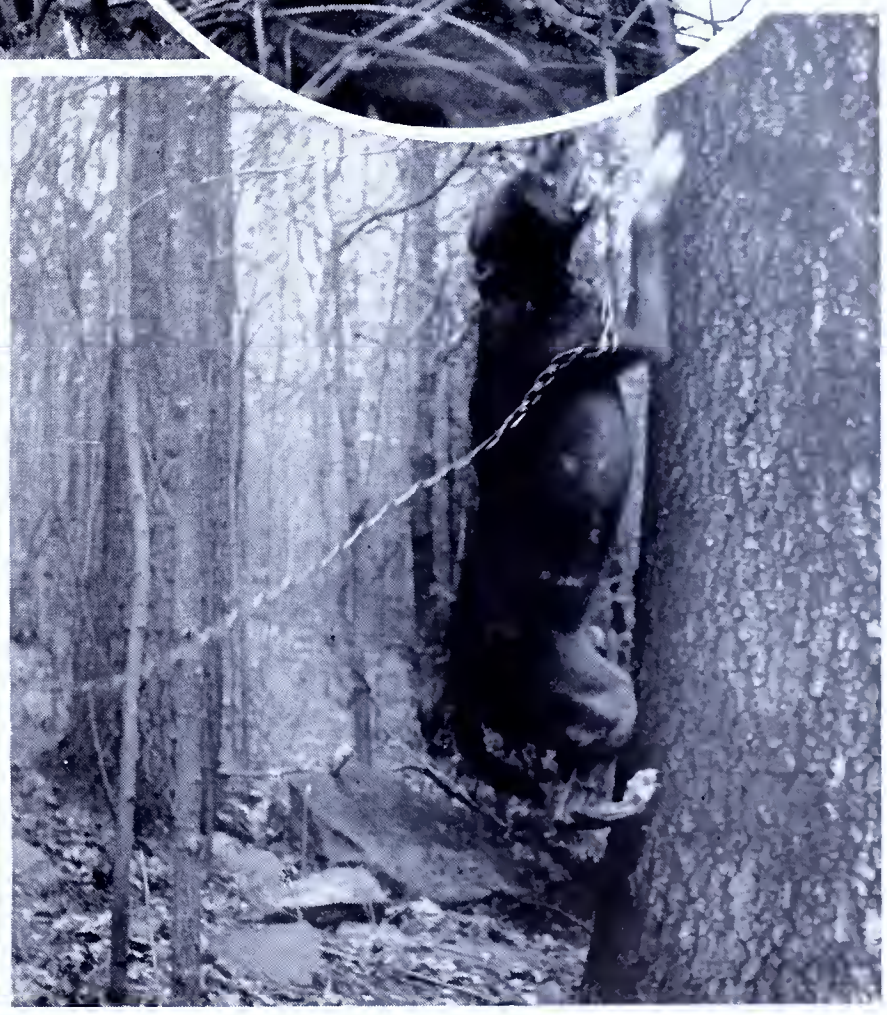












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September 1944

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PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XV, NO. 6

EDITORIAL

September, 1944

IN THIS ISSUE

★

"Poverty or Conservation Your National Problem"
By J. N. "Ding" Darling

★

Wildlife Problems
By Hon. Ross L. Leffler

★

Some Observations of the Black Bear
By Leslie H. Wood

★

An Accounting to the Sportsmen
By Nelson E. Slaybaugh

★

The Burning Question
By "Lesmoke"

★

With Those in the Service

★

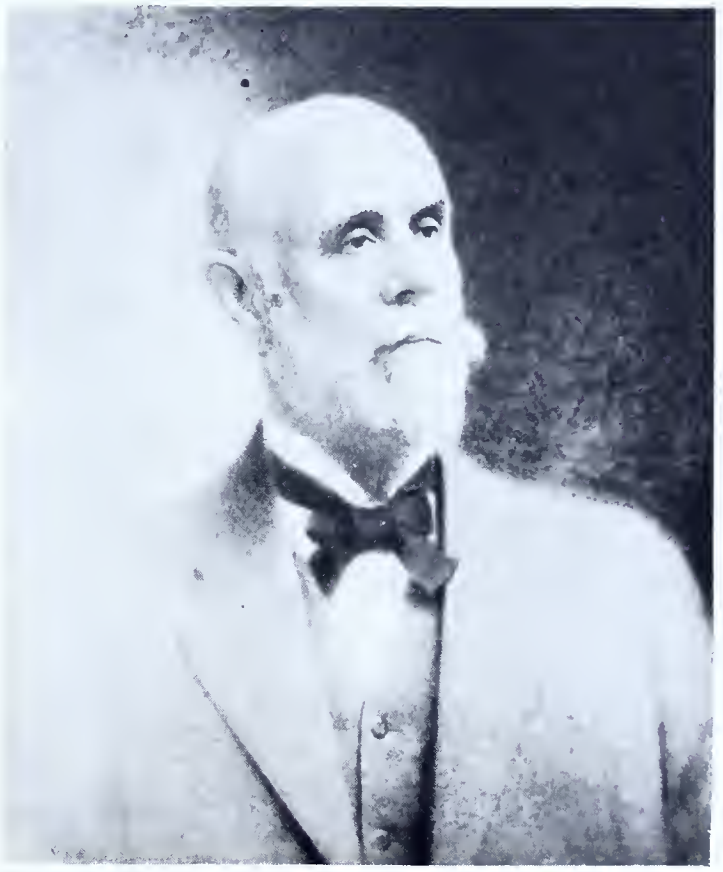
Who's Zoo——?
(A new feature in nature study in pictures)
By Jacob Bates Abbott

★

Cover by Jacob Bates Abbott

★

In Commemoration



DR. JOSEPH H. KALBFUS

"On this twenty-fifth anniversary of Dr. Kalbfus' tragic death, the Game Commission and the sportsmen of Pennsylvania pause in reverent tribute to a great pioneer conservationist. We all owe him an everlasting debt of gratitude."—President Ross L. Leffler

IT IS not difficult to travel after someone has gone ahead, removed the rocks, cut down the hills and built a smooth and easy road, or to cross a turbulent river after someone else has built the bridge. So our conservation program in Pennsylvania operates more smoothly since Dr. Kalbfus removed the first rocks and hazards of the path we follow.

According to his autobiography, shortly after Dr. Kalbfus arrived in Harrisburg in 1887 to accept a position in the office of the Secretary of the Commonwealth, he became acquainted with the Worden Brothers, who were both ardent sportsmen interested in the propagation of game in the State. Already Passenger Pigeons, numerous in Pennsylvania during the boyhood of these men, had become extinct. Other game was threatened with the same fate; there were no protective laws against killing any game.

During his youthful days in the West, Dr. Kalbfus had seen game killed for the love of killing. Western buffaloes faced extinction because men and boys shot them from train windows just to see them fall; because men killed them by the thousands for the hide, for which they were paid $2.00, the tongue worth $.50 and only enough meat for immediate use. He had seen in the markets of Chicago and Iowa box cars loaded with barrels containing only the smoked breasts of pinnated grouse (prairie chickens).

Dr. Kalbfus, the Worden Brothers, and many other men of the same mind, saw the end of game in Pennsylvania unless laws were passed to restrict unlimited killing.

So in 1890 the organization known as the Pennsylvania State Sportsmen was formed for the purpose of aiding in enacting and enforcing laws giving protection to wild mammals and birds, conserving the forests, growing new trees, and attempting to keep pure the streams and rivers of the State. The members of this organization were from all walks of life, from judge to day laborer. Their motives were not actuated by personal gain.

It was through the influence of this organization and the special effort of Hon. Richard F. Baldwin, Delaware County member of the Legislature, that the Board of Game Commissioners of Pennsylvania was created in 1895. The first commissioners were appointed in November, 1896.

(Continued on page 32)



Photo by John Lohmann

Bradys Lake on State Game Lands in Monroe County. At its meeting on May 6 the Game Commission agreed to permit the use of boats on the lake for fishing between 5 A. M. and 10 P. M. daily during the months of July, August and September, and to provide other facilities not inimical to the purposes for which the tract of game lands was acquired. Fishermen were reported to have had a "field day" on the opening of the bass season.





"Poverty or Conservation Your National Problem"

By Jay N. "Ding" Darling

Honorary President, National Wildlife Federation

ANY NATION is rich so long as its supply of resources is greater than the needs of its people. After that no nation is self-supporting. Somewhere between those two extremes lies America and its problem of a world free from want.

Since it seems practically decided that America is going to have company for dinner, it might be a good idea to have a look at our pantry shelves and count our food coupons. Any good housewife would do as much.

Feeding the war-starved world with the surpluses produced in a land of free men under Democratic Government would seem a reasonable method by which to create a favorable impression on the people who have starved under Fascism.

At any rate, the invitations are out and the hungry guests are arriving: India, China, Greece, Algeria, Tunisia, a portion of Russia, some of England, a little of Spain, Sicily, Southern Italy, and presumably all the rest of Europe as fast as portions of it are liberated, to say nothing of helping to feed the armies of our Allies.

It is a large order, but our agriculturists have reached a new record peak of production. Technological advancements have greatly increased the crop yields, and victory gardens—in spite of the bean bugs, blisters and amateur efforts—have filled the new horn of plenty from a hitherto undeveloped source of food supply. Admittedly many thousands of acres still remain idle, or through neglect fall far below their maximum production. An International Food Conference has pooled the estimated resources of the world and made out a menu, which they declare holds promise of nutrition for all. We are proceeding to set the table on that assumption. Our objective is a world free from want, and for an unspecified length of time, at least, a large part of the food supplies are to be furnished by America.

Facing the Facts

Surely there is no one who would wish to destroy that fine hope and laudable intention, but it might as well be admitted that feeding the hitherto undernourished world cannot be accomplished simply by all joining hands and singing "God Bless America." It is going to demand some very serious thinking and even more serious doing. What must be done we must do in the interest of a better world of which we are an inseparable part. Such sacrifices as we may be called upon to make cannot possibly equal the cost of wars and the threat of future wars. If the free nations of the world will join in a cooperative union to accomplish that objective our contribution may be costly but compared to the wastage of war it will be cheap and may be set down as money and resources well spent.

So much for the compulsory needs now confronting us. If that is the price of world peace we must pay it. But what is the use of thus saving our precious lives if we are going to commit national suicide by wasting our resources faster than we eat them? For instance, while we are thinking about how we are going to feed the undernourished world there is more beefsteak and potatoes, roast duck, ham and eggs, and bread and butter with jam on it being washed down our rivers each year in the form of good rich topsoil than all the food we export to our Allies and distressed populations in any current year. That is a lot of groceries. It may look like nothing but mud to you as it swirls down our silt-laden streams, but it is the very substance

(Turn Page)

WHOSE ZOO?

You can test your knowledge of wildlife every month in GAME NEWS, for there will be a full page of incorrect drawings of natural history in each issue. Of course the first one, on page 10, is very simple and no sportsman will fail to find all the mistakes—but, they may get harder.

Send ideas in to us, by all means, Let us hear of some of the interesting local beliefs and legendary myths of the habits of wild folk, which old Uncle Ebeneezer will swear on a stack of Bibles he saw with his own eyes in 1881, and which, of course, you know could never have really happened.

Just to make sure that you are 100% right, look on page 32 for the corrections of the artist's mistakes.



Photo U. S. Soil Conservation Service

The tremendous loss of unchecked soil erosion has been going on for years. Only Mother Nature can replace precious topsoil and that takes centuries.

out of which our magnificent crops are produced. It is the cream off the top of our continent.

The Loss of a Capital Investment

That tremendous loss by unchecked soil erosion has been going on for years and still continues in spite of all the noise and shouting about soil conservation. Even a Democratic form of government, with all its blessings, cannot replace lost topsoil. Only Mother Nature can do that, and it takes centuries of precious time.

If an alien aggressor attempts to steal so much as a square inch of our sacred land the whole nation rushes to arms, but there are twenty-five million cubic feet of our richest land washing away each year—lost forever—and no one, well almost no one, gives it a thought. Peculiar, isn't it? But no more astonishing than the complete disregard with which the people of this nation have watched their forests, well stocked lakes, streams and other natural resources disappear with unparalleled rapidity. That is a simplified way of saying that while we are worrying our silly heads over our food ration coupons, we are allowing the substance of our human paradise to slip through our fingers without protest.

The trail of civilization is strewn with the wrecks of derelict races and nations which fell by the wayside when their natural resources played out. By the way, did you know that the fabled land of Canaan, once flowing with milk and honey, is now a desert? Canaan is now on relief and we are furnishing it. How and why a land once flowing with milk and honey should be reduced to starvation and rags is a fair object for study; and how to avoid it the lesson which conservationists try to teach. The mystery is that so few people should care to learn it.

As long as we in America could pick up the telephone and get anything we wanted delivered to our door for the asking—whether it was fresh strawberries in midwinter ripened in Texas sunshine or two-inch sirloin steaks from cornfed beef—it seemed almost impossible to get the people of the United States to think there was any limit to our natural resources or to take seriously the subject of guarding against rapid depletion. Since we seemed to have plenty of everything why worry about it? Were we not the richest country in the world? Then, why all this bother about conservation?

The Warning—Disregarded

Until this war we thought we had so much of everything that our resources would last forever. Within one short year, we have tumbled from this dreamy height in the clouds and landed, none too comfortably, in a bramble bush of painful shortages, which has scratched and jabbed us in a lot of places we never even suspected had feelings.

When Japan moved into Manchuria ten years ago, we still closed our eyes and ears to the open threat to our safety. The majority of our people would not take this war seriously either until the attack on Pearl Harbor.

We realize now we were actually warned of the war that was to come, and the warnings to this nation that the depletion of our natural resources has already reached the danger point are written just as plainly across the face of this continent as were the threats made by Hitler, Mussolini and Hirohito. They are written in million-acre patches of *denuded forests, abandoned farms, dust bowls* and *dried-up rivers, springs* and *lakes.* Tens of thousands of so-called "Okies," refugees from wrecked land, have paraded back and forth before our eyes on the public highways crying for relief within the last decade. The portent of these warnings has been interpreted and shouted from the housetops by the prophets of conservation, but the public turned a deaf ear. We blamed our economic breakdown on Wall Street, on Herbert Hoover, the Republican Party, on Capitalism, on Industry. We blamed it on most anything except on depleted natural resources. To name the real cause would reflect on our own intelligence and scandalous waste of which every one of us in this country is more or less guilty. As a remedy we brought forth a great number of patent medicine tonics. We tried to spend ourselves rich. Redistribution of wealth and the forty-hour week were recommended as cure-alls. Made-work projects and plowing under surplus crops were applied liberally. There is no attempt to deny or affirm the minor virtues which were claimed for these various specifics, but none of them touched the seat of the disease, which lay, at least in part, in the rapidly shrinking agricultural lands, the denudation of rich forest areas, the pollution and overfishing of our lakes, streams and coastal areas, and the overgrazing of our western grasslands. The patent medicines had cost us forty billion dollars, but the major problem of checking the disease of dwindling resources had scarcely been touched. Then came the war. The new emergency put upon our natural resources the greatest burden that had ever been known. That burden will continue until long after the signing of peace. While the war-torn world is healing its wounds a large proportion of the sustenance will continue to come from our continent. That again raises the question of how long we can continue to *feed more and more people on less and less productive soil.* That we are going to have to feed more and more people is a foregone conclusion. The only other alternative is to materially remedy the *"less and less"* soil situation by known methods of soil management and the application of scientific conservation principles. Since it is obvious that *more and more people* cannot live on *less and less,* forever and ever, world without end, we should face the problem frankly and either apply conservation seriously or resign ourselves to the inevitable consequences of a *greatly lowered standard of living.*

We Will Win the War Against Our Foreign Enemies

It took Pearl Harbor to awaken us to the dangers of a three-year-old war which threatened our Democratic way of life. With sufficient courage, determination and sacrifice of blood and national treasure we can recover from that blow and win this war against our human enemies but if we do

not take warning and defend our natural resources from this headlong race of waste and depletion we will lose a battle from which our continent never will recover. The road back from Pearl Harbor is short and easy compared to the road back from a continent shorn of its natural resources. The Prodigal Son was lucky. He went back home to the fatted calf after he had squandered his all in riotous living. When we have spent our heritage of natural resources in riotous living there won't be any fatted calf or sympathetic father to go back to. Mother Nature is unforgiving. When we have spent our natural resources, we have spent everything, and we are jolly well doing just that right now.

It seems strange that we are not more concerned over this inevitable prospect, especially in this day of horrors when we see the cumulative results of world-wide surplus populations seeking to extricate themselves from the pinch of worn-out soils and shrunken resources by wholesale indulgence in mass murder and international burglary. Whatever the pretexts may be by which Japan, Italy and Germany attempt to justify the slaughter of their neighbors and the seizure of their territory, the undisputed facts are plain that Japan could no longer sustain her bulging population on the decreasing resources within her island boundaries. Italy had to have expansion of both territory and food supplies or suffer ever-increasing national poverty. Germany must have land, food and a place to send her surplus of people or accept a gradual decline in living standards and face eventual national disintegration. Each seeks now to supply her own needs by forcibly taking them from the neighbors.

Germans, Italians and Japanese have learned by sad experience that a loaf, however large, can be cut into only so many slices. With all due reverence to the parables of Holy Writ, mere man has found no way to feed an ever-increasing multitude with fewer and fewer loaves and fishes.

Will We Win Our War for Conservation?

That is the lesson which conservationists are trying to drive home to the people of this continent before it is too late. The rich topsoil, the sparkling waters and rich growth of vegetation, together with its minerals and wildlife, which made this continent the richest prize in the history of civilization are not inexhaustible, in spite of our common habit of thinking so. If intelligently cared for they can be made to last indefinitely and produce abundantly. But if any one of the three is depleted by wasteful practices and slothful mismanagement our American continent will be broken out with a rash which no sociological salve can cure. Then America will not only be unable to *"feed the world"* but by its own standards of living will be unable to feed itself. When that day comes, if it is not here already, *economic depressions, revolutionary uprisings* and *internal discontent* will follow as night follows day, just as these same symptoms have marked the decline of every center of civilization since the beginning of history. Many of the tragedies which have come upon portions of our population during the recent heart-breaking years of depression were the direct results of disregard or ignorance of the simplest conservation principles. In spite of all technological discoveries those same tragedies will be surely multiplied as we take on additional responsibilities resulting from the war.

Productivity of soil is the *"bottle-neck"* of human existence. It has been so since man's sojourn on earth began. History is one continuous succession of migrations from exhausted soil to new fertile fields which nature has spent millions of years in creating. There is only one formula for production of fertile soil and man has no part in that creative process. All he can do is use it and make it last as long as possible.

How Nature Works

Chlorophyl, that green pigment in vegetation, plus sunshine, has laid down all the topsoil, all the coal, all the oil and every organic living thing on which mankind has subsisted and must subsist forever. For chlorophyl is that magic green element in vegetation which alone can capture the carbon dioxide from the atmosphere and combine it with hydrogen to make all the carbohydrates which enrich the soil and keep us alive. Without countless centuries of chlorophyl and sunshine cooperation we

(Continued on page 26)



Photo U. S. Fish and Wildlife Service

If we do not take warning and defend our natural resources we will lose a battle from which our continent will never recover.



Unless we have strict management of deer herds there will be little or no deer hunting in this State twenty-five years from now.

WILDLIFE

By Hon. Ross L. Leffler

President, Pennsylvania Game Commission

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CONSTRUCTIVE criticism and progress are synonymous. I realize very well, however, that much of the criticism that is directed toward the game program, the personnel, and the Commission itself by various groups throughout the state results from the fact that these groups are not fully acquainted with the program. Keeping people informed is, to my mind, the responsibility of the Game Commission; it is our responsibility to see that you have all the facts so that you may judge more accurately the effectiveness of this program which we are trying to promulgate in order to insure a bountiful supply of game. If we have not told you, that is our fault. I think the lack of information *is* largely our fault, and we are going to take immediate steps to correct this and to launch a more intensive and intelligent public relations program to keep you fully informed.

An efficient game management program requires careful planning for long periods in the future. I realize that there is a tendency to look at game problems from the viewpoint of "How do they affect me personally?" or, "What luck did I have this past hunting season?" This is shortsighted, and we must look forward to the future. What is the game supply of Pennsylvania to be twenty, thirty, fifty years from now? Intelligent planning is necessary if we are to make certain that future generations will have a bountiful supply of wildlife. In this work we must not be too selfish, and we must balance all the factors, one against another, to make sure that we are operating on a sound, businesslike basis as far as possible with the knowledge at hand.

Many of us are inclined at times to be a little selfish and to look upon the whole program exclusively in the light of our own interests. But the program must be approached in an altruistic manner if we are to maintain our position as the greatest game state in the Union, and it requires the united support of the 640,000 licensed hunters of the state, working with their Game Commission, to bring this about. It is not a matter, as I have heard it said, of "us sportsmen" and "you game commissioners." After all, we are working for the same end, and in any well-balanced organization there must be the Board of Directors—the Executive Board, if you please. Certainly 640,000 men can never agree upon one program; that is why the problem of game administration is such a difficult one. It is hard to make all these people realize that we must approach the problem from the standpoint of the common good for the people as a whole. Furthermore, the 640,000 licensed hunters of this state must remember that there are over 9,000,000 additional residents of Pennsylvania who also have a stake in its wildlife and in the natural resources with which the Keystone State is so richly endowed.

Let us consider one of the most controversial issues that has confronted us in recent years—the deer question. I would like, of course, to give full credit to the game commissioners, who served so well in the early days, for bringing back the deer. Those men do deserve a tremendous amount of credit. Remember, however, that Pennsylvania was at that time a cut-over state, a brush state. During the last forty years, timber has been growing and shading out the underbrush upon which the deer feed, with the result that we have had a constantly decreasing supply of food for that reason alone. Add to that the fact that the enormous deer herds that we had were eating the balance of the supply. The result is that we now have in Pennsylvania two conditions which prevent us from ever again supporting the large herds of deer that we had ten or fifteen years ago, unless our future lumbering operations are conducted in the same reckless and broad scale manner.



During the past forty years timber has been growing and shading out the underbrush on which the deer feed.

PROBLEMS

A Summing Up of the Multiple Things That Must Be Done in Order to Insure the Best Game Management Program Possible for the Future.

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We must build 249,100 feet of rail fence and encourage the growth of trees and shrubs along it.

nd we may as well face that fact now. Unless we have strict management of deer herds, there will be little or no deer hunting in this state twenty-five years from now. You will probably want to blame the Game Commission for that. In one of our counties where there do not seem to be a great many deer now, some of the people will say, "Well, it's because we killed off the does." But it is actually because we did not kill them off early enough in the game.

Likewise, during the past season a lot of men said, "We don't oppose the killing of the doe, but we don't want to pay a dollar for the privilege." The Game Commission has no desire to extract any extra fees from the hunters of this state, but no one has ever been able to suggest any effective method for controlling the number of hunters in a given area except by issuing special permits. In a state-wide season permits are not needed, but when it is necessary to open the season in a few counties only (and that is something over which we have no control), I know of no better method than the permit system, which was blasted from one end of the eight northern counties to the other. Many of our best sportsmen were among the critics, but they did not think very far when they made the statements they did.

Another problem that has been giving us a great deal of difficulty is the importation of rabbits. Careful observers will say that they do not believe the results obtained from imported western rabbits justify the amount of labor put into them, let alone the money that has already been spent. In addition, there is the danger of importing disease into the Pennsylvania covers and destroying all our rabbits and other small game, to say nothing perhaps of the cattle owned by the farmers. Moreover, live trapping of rabbits in areas which are not open to hunting will produce much better results than buying rabbits in Missouri. We are satisfied, therefore, that we have no right to spend the money of the citizens of this commonwealth when we are convinced that the results do not justify the expenditure, to say nothing of the great danger from disease that is involved in importation.



There are food plots to prepare, sow, and cultivate.

Predator control is another very serious problem which must be dealt with very soon, inasmuch as the trappers are not as active as they used to be. We are planning now to hire trappers and place them in the field to train people in the best methods of trapping.

Looking ahead into the future, I should like to discuss with you a few matters regarding long range planning. First of all, because of the present war emergency and the enforced expansion of many government departments, our offices have been scattered in several different buildings throughout the city of Harrisburg. This does not make for good management, and I hope to see the day when at least two conservation agencies of the state of Pennsylvania—that is, the Fish and Game Commissions—will be housed in a building of their own. The sportsmen of the state should have a conference room where they may discuss their problems and find all the things needed to make such a meeting place a success. An organization like ours certainly justifies this type of housing, and I assure you that the Game Commission will endeavor to secure a building for the use of the conservation agencies and the sportsmen of the state.

Another program, which I hope to see launched in the near future, largely using Pitman-Robertson funds, is a thorough study of the mammals of Pennsylvania. Very little is really known about them, and there has been little written except in a general way. Since S. N. Rhoads wrote his book at the beginning of the century, no really intensive study has been made of the mammals, large and small, and their relation to each other. This should be made available to the sports-

(Continued on page 28)



Photo by Delbert Batcheler

While photographing Ravens in Clinton County in 1942 Mr. Batcheler learned of three bears in a cornfield adjacent near-by forest lands. He hurried to the spot to capture the above photo of a mother and three cubs busily engaged in searching for "nubbins." The cattle in an adjoining field were seemingly oblivious to the little family.

Some Observations on the Black Bear

By Leslie H. Wood

PERHAPS no other animal in Pennsylvania so appeals to the popular interest and imagination as the black bear, and he has been the subject of many legends and tall stories some of which have a basis in fact while others are likely born of fear and wild imaginings.

It is not the purpose of this article, however, to attempt to discredit any of the story tellers but to set down a few personal experiences and observations of many years of more or less intimate contact with this intensely interesting animal. The person who says that anything in nature, however extraordinary, does not happen is assuming quite a responsibility, and it seems much safer to confine oneself to the things which do happen to the positive knowledge of the narrator.

The point is well illustrated by an experience of the late Chauncey E. Logue, State Trapper and the late John B. Ross, Field Division Supervisor. While hunting in Cameron County they were tracking a wounded bear on snow and found where he had been followed and attacked by a much larger bear which, after a terrific battle, had killed and eaten a goodly portion of the one they were following. Of course this is not normal bear behavior, but it is one of those things that did happen.

While American Black Bear is the name of this particular species of the bear family, the individuals are not all black. Many are brown or cinnamon. This is undoubtedly due to albinism and while in most mammals the true albino is pure white, I think the cinnamon color is as near as the black bear comes to the true albino.

In the summer of 1931 a female black bear was seen in the Pine Creek canyon country of Tioga County with three cubs, two of which were brown. A few years later two brown bears were killed on the same day in this section which were identical in size, weight and general appearance and were undoubtedly the same bears. As I now recall both had pink eyes and tongues.

Bears hibernate with the approach of severe winter weather, but I have never seen one attain a completely comatose state as is the case with some of the seven sleepers. Their respiration rate is very slow, two and one half times per minute in the one I checked, but they awaken very easily.



This little fellow was caught nosing around a stream he had just crossed.

In checking this bear's respiration I placed my hand on his side just back of his front leg and with watch in hand I counted his breaths by the rise and fall of my hand. He inhaled and exhaled apparently normally but it would be so long between breaths I thought each one would surely be his last. After a few minutes of this, however, he woke up and let me know he was very much alive.

Often during a warm spell in January or even February bears come out of their dens and roam around. Most of the hibernating bears I have seen were in a hole dug under the roots of a fallen tree or in a hollow stump, almost without exception on the north side or the top of the ridge. Sometimes they go into a den in the rocks or even spend the winter above ground in some dense evergreen thicket. I found one such bed in a hemlock thicket that was as comfortable a bough bed as any north woods guide could make. Probably it was a male bear and he had carried in green boughs from the outside and made a thick circular mattress upon which I am sure he would have spent the winter if he had not been disturbed.

In midwinter the female has from one to four cubs, three being the number I have seen most. Practically all these new-born cubs were found during the last half of January, but of course I am in no position to say many are not born in February or March. The cubs are very small; the ones I have weighed only tipping the scales at twelve to fourteen ounces.

(Continued on page 30)



Point! Photo by W. L. R. Drake

An Accounting to the Sportsmen

By Nelson E. Slaybaugh

THE calendar reminds us that another annual chapter has been written in the annals of the Pennsylvania conservation program. Figuratively, the book is rather voluminous as it now contains forty-eight chapters, since the Commission was organized in November, 1896. Each one of the forty-eight years recorded progress and made its contribution to the total success of the program. It is obvious that the recording of the accomplishments year by year including revenue and expenditures would, if space permitted, prove most interesting to all nimrods, especially the youngsters who have joined the hunting fraternity during recent years. Since this cannot be done we will proceed to follow the more or less uniform pattern in reporting on the financial operations of the "Game Fund" which is wholly maintained by the sportsmen themselves for the perpetuation of their sport, for the year which ended May 31, 1944.

Income

During the year which ended May 31, 1944, the income from all sources credited to the Game Fund amounted to $1,503,120.85, or $61,765.13 below the previous year. That the decrease in revenue was not greater is the thing that surprised all of us. In comparing the revenue for the year under review with the 1940-41 fiscal year, when an all-time record was established, we find there was a decrease of $155,617.92. (For details please refer to Table No. 4 which accompanies this article.)

The backbone of the Game Fund is the revenue derived from the sale of hunting licenses, which amounted to $1,262,134.14 during this period, and on the basis of preliminary reports (subject to slight final audit changes), there were 570,418 Resident and 11,827 Non-Resident Licenses issued, a total of 582,245.

Expenditures

The expenditures for the year which ended May 31, 1944 totaled $1,183,483.13 (see Table No. 4 for details). Just as individuals find it impossible to carry on normal operations during the present global crisis, so does the Game Commission. While it has long been the policy of the Commission to keep expenditures well within the average annual income, the curtailed or even suspended program caused by priorities, shortage of labor, etc., account for more than the usual difference between "income" and "expenditures," which is a wholesome condition. Were this not a reality the financial structure would not be basically sound and the Commission would experience much difficulty during post-war days in financing the many capital expenditures (which have and will continue to pyramid) over and above the amount of money that will then be available from current revenues. These obligations have been provided for by the creation of a "Wartime Reserve," the details of which are explained elsewhere in this article.

The land management expenditures for the period under discussion, as during the previous years, exceeded the amount spent to buy land. With the vast acreage of state game lands and the expanding programs of the Commission properly to manage these lands so they may effectively serve the specific purposes for which acquired, sportsmen generally understand the trend in this direction. This part of the Commission's program is carried on by earmarking seventy-five cents from each $2.00 fee paid for a Resident Hunter's License. Under the provisions of the Act, this money shall be used for the purchase and maintenance of State Game Lands and Refuges. At the end of the period under review, the Commission owned or had under its control 1,038,287 acres of game lands. The Commission does not pay taxes, but in lieu thereof it pays fixed charges on State Game Lands. This one item of expense alone amounted to $36,624.30 for the year which ended May 31, 1944.

Mr. Hunter: Please be a sportsman and keep your dogs out of soy bean fields, especially during the gunning season. Even while training, farmers don't like to have dogs running through their soy beans. To respect this wish is little enough in return for the privileges the landowner gives you.

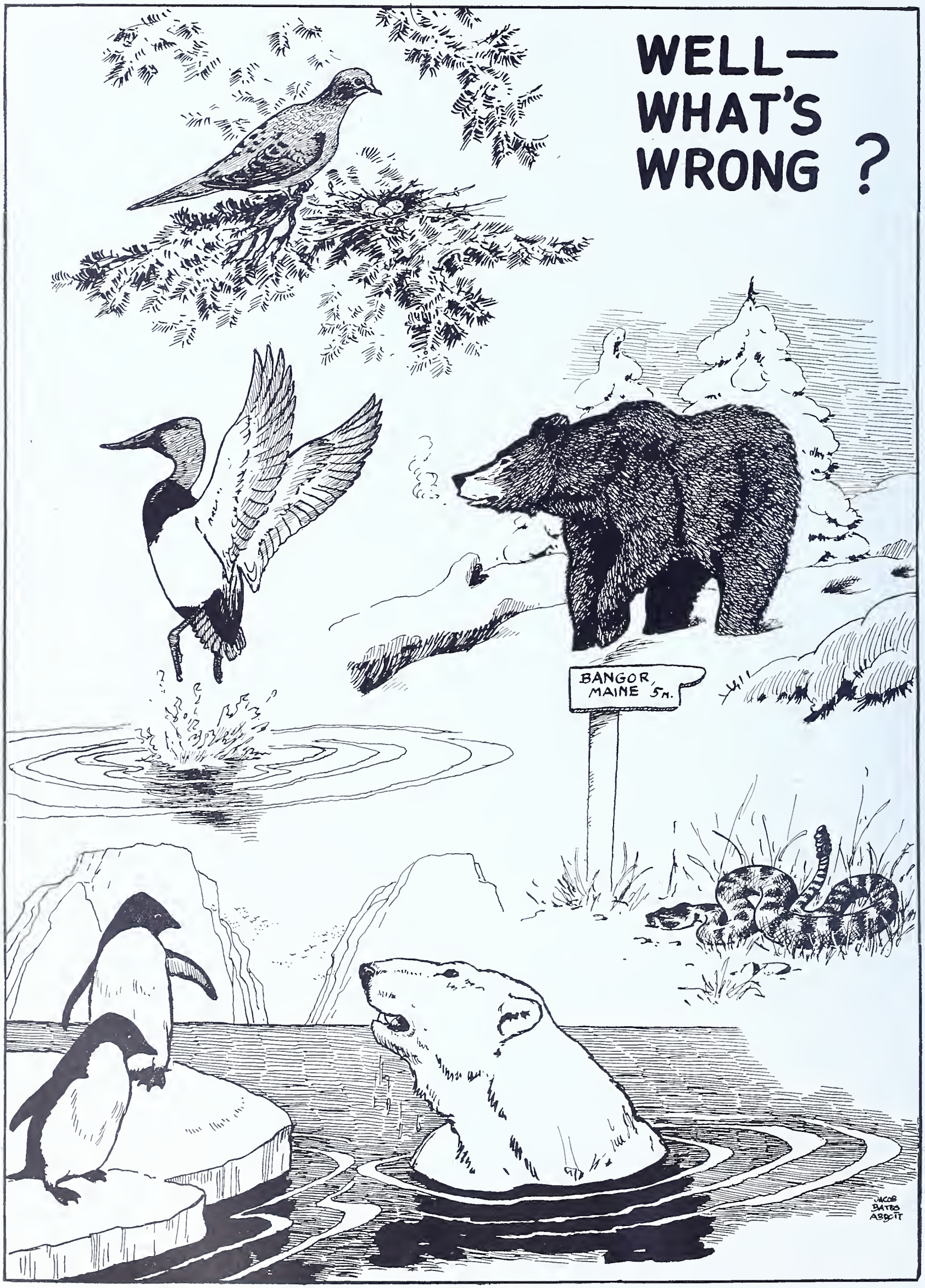
Composite Statement

Table No. 1, which accompanies this article, has been brought up-to-date to include the year which ended May 31, 1944. It will be observed that the percentage of the total expended for each of the major functions in relation to the total changes slowly, as is to be expected. During the 24½ year period the Commission expended a total of $25,870,473.53, of which $14,748,356.01 or 57.1% of its total outlay went into the production and stocking of game, public hunting grounds and refuges, and bounties; $7,964,168.82, or approximately 30.7%, for the protection of game, mostly law enforcement; and $3,157,948.70, or 12.2% for all other purposes, including Executive Office Administration, Accounting, Public Information, Research, Wild Game Transfer Program, Hunters' Licenses and Tags, General Printing, Game-Kill Tabulation, etc.

Status of the Game Fund

The condition of the "Game Fund" as of May 31, 1944 was quite satisfactory. It is but natural these days, perhaps more so than ever, that sportsmen should be interested not only in income and expenditures but also in

(Continued on page 22)



Answers on Page 32.

The Burning Question

By "Lesmoke"



The above is a photo of one of a series of six colored posters which the Commission hopes to have available for distribution early in 1945.

ANNUALLY, during the months of April and May in the spring, and during October and November in the fall, many farmers and other landowners get the urge to burn brush, stubble, or grown up weed fields. The reason for the burning may be good and thoroughly commendable. Destruction of active or dormant insect pests, their eggs and breeding places, preparation for breaking the ground in anticipation of planting, removal of eyesores from the landscape—these and other equally good excuses may prompt the firing of certain areas. The manner in which, and the care with which burnings are consummated, will determine whether they attain the result desired, and stop at that, or whether they exceed that objective and end in disastrous results from the conservation standpoint.

Controlled burnings, to be effective and bring about the desired results, must be carried on under conditions which in many cases will require the greatest care and vigilance. Brush piles to be burned must never be located where communicating strips of dry material join up with nearby woodland areas. Weed fields extending right up to timberland borders cannot be fired with safety. Constant attendance upon the job is absolutely necessary. The ounce of prevention here is verily worth many pounds of cure.

While many striking instances might be cited where disastrous results followed a little carelessness or thoughtlessness on someone's part, a single case will be briefly mentioned.

A couple of years ago a Centre County farmer set fire to several brush piles in rather close proximity to the dense second growth timber area known as the Barrens. At the noon hour he went to his nearby house for his dinner. Upon finishing the meal he was horrified to find that, in his short absence, the fire had spread to the nearby woodland, and despite all efforts of a large force of fire-fighters, quickly assembled and rushed to the scene, many hundreds of acres of fine hunting territory were quickly changed to a charred and blackened scene of utter desolation.

Not only is the forest fire the greatest single destroying influence where timber is concerned, but wildlife suffers immeasureably in the destruction of habitat, food supply and life itself. Then again obliteration of watershed cover and denudation of slopes result in rapid run off of rainfall, erosion taking place apace, lowering of stream levels, and disaster to aquatic life.

As regards wildlife, ground nesting birds first have their nests and eggs and young destroyed. No nest in any tree, however high, may escape. Birds and mammals flee this way and that attempting to escape high walls of flame with which they may be entirely or almost entirely surrounded. Countless creatures are burned outright or suffocate in the blinding smoke. Tree dwelling animals such as squirrels, opossoms, and raccoons are roasted within their own doorways. While one might think that such large and swift and strong animals as deer and bears could escape easily, such is not always the case, and deer sometimes die in numbers in even small but severe forest fires.

Just a few years ago all our newspapers told in large headlines of seven boys, members of a C.C.C. Camp in Cameron County, being burned to death in a fire which they were assisting in extinguishing. The fire was supposedly started by some one in the mistaken idea that it would better wildlife conditions, or perhaps bring about a greater huckleberry crop.

I have never yet met a forester who would advocate the burning over of woodlands in order to promote a greater food supply or better habitat for wildlife. I have never known a farmer who would consent to having his woodlot or adjacent mountain land burned in order to bring about a greater blueberry harvest.

Forest fires not only destroy vast areas of tree growth of all ages, including often the largest virgin timber, leaving sometimes not a vestige of green as far as the eye can see, but the forest carpet of decayed vegetation, the humus, is burned right down to the sand and rock, the mineral soil, leaving no seed bed in which valuable plant life can get a foothold until after a long lapse of time. In the meantime we have all too often only a scene of utter desolation, of charred and blackened terrain, another addition to Pennsylvania's millions of "desert" acres, the result of repeated disastrous forest conflagrations of past generations.

During the era of C.C.C. Camps, of which at one time ninety-

(Continued on page 31)



With Those in the Service ☆ ☆

"In these war torn days, markmanship, particularly with the rifle and pistol cannot be overemphasized. In our military camps great stress is placed on good marksmanship. Instructors and coaches are spending many tedious hours teaching the uninitiated how to shoot. I wonder if proper or due recognition has ever been given hunting as set up in these United States, and particularly in Pennsylvania, in the art of shooting.

"Good marksmanship under difficult shooting conditions is acquired only when one is imbued with a great pride and love for it, like any other vocation or hobby. The difference between our Colonial riflemen and the British 'smooth borers' was a little more than the difference between the two arms. Behind the rifle was an individual who lived with and by his aim. His food was acquired by it, his life protected through it. He invariably knew when he drew his bead what the result would be. His aim was his most prized possession.

"Richard Bong who recently received official recognition for topping Eddie Rickenbacker's record of twenty-six planes, was most of all not an ace aviator, not a rifle marksman, but a deer hunter in Wisconsin's woods. He wanted a furlough to come home from fighting the Japs and knocking down their planes to see his folks, of course, but his most secretly nurtured desire was to time that visit with the opening of the Wisconsin deer season. Dick wanted of all things in his precarious and dangerous life to get another crack at his most beloved hobby and sport, deer hunting. The thrill of topping a bounding buck breaking through the brush at rip roaring pace, he wanted to live over again. Also to see if the deadly dynamite was still in his hand and trigger finger as he felt with rifle barrel for the open spots in the laurel or pine through which his quarry would pass. Of this skill and confidence is formed the stuff that counted so much on his side against the Zeros.

"There are a lot of Dick Bong's in our armed service. Would there were more.

"People have scoffed at our game shooting on sentimental grounds, but we actually should thank God for the priceless heritage that had been bestowed upon America. The right of every citizen to take his rifle or gun in the woods or field has given our youth as priceless a gift as almost life itself. May it be preserved and perpetuated unto untold generations to come."—Charles R. Lobs, Philadelphia, Pa.

"I guess it is about time I report in to the old office and at least let you know I am still alive—I am sorry to have waited so long before doing this, but I have been waiting until I was more or less settled—and in the meantime I have seen quite a bit of the world. So now I will try to give you an account of my life in the army.

"After going through the reception center at New Cumberland I was sent to Fort Custer, Michigan for basic training at the M.P.R.T.C.—and it was a fairly rough twelve weeks. From there I went to the P.M.G. School where I saw Lt. Lichtenberger quite often although it was my luck never to have had him as an instructor. My next step was to the P.O.C. and the long, but none too boring trip which brought me here—and now I am once more working for the P.G.C.—but this time it is the Persian Gulf Command, rather than the Pennsylvania Game Commission. I have been assigned to the Provost Marshal Division and am quite pleased about it—it promises to be quite interesting work.

"While at Fort Custer I had the opportunity to visit the Kellog Bird Sanctuary a few times and had some very interesting talks with Mr. Pirnie who is in charge of the place. Other than that I have had little

chance to see or hear about conservation or wildlife. During a short stay in India I did see a few deer, foxes, and wolves—at least that is what I thought they were. I saw them from the trains and had no one I could ask about them, so the best I could do was guess as to their identities. However, I have been hearing of some good gazelle and boar hunting in this country that I intend to look into a little further at the first opportunity.

"Now that I have an address that may be permanent I would appreciate being put on the mailing list for the GAME NEWS once more. I sure have missed not receiving it the last few months.

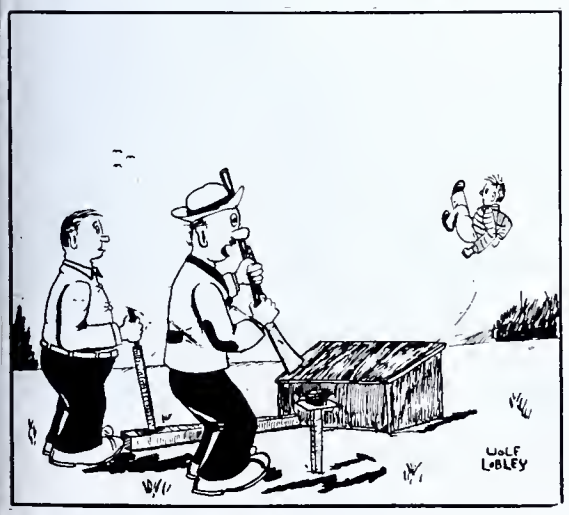
"Give my regards to all back there—I will always be looking forward to the day when I can be back with you. And now that my day of moving appears to be over for a while I promise to keep in a little closer touch with you. Good Luck."—Pfc. Donald E. Miller, 33681606, Hq. & Hq., Co. P. G. C., APO 523, c/o P. M., New York.

"Greetings from the Sunny South.

"I've been spending parts of the last three days on watch at a badly bungled forest fire on the area. It was supposed to have been extinguished last Wednesday; broke out over the weekend. We went out Sunday evening when it was at its height. It was pushed by a strong breeze and was a combination ground and crown fire. We held it at a road as that was the only way we could have stopped it. It was burning in a stand of pine trees and was 'going to town.' We also watched it a couple of days to see that it didn't break out again. Apparently it has died down as we weren't called out today. We need rain badly and it would finish off the fire and, we hope, settle the weather."—Pvt. Joe Leiendecker, Camp Lejeune, N. C.

"The Navy has been trying to add to my education—have been sent here to Boatswain's School for the time being. Getting ready to get a crew aboard one of those little landing craft infantry. So perhaps I'll get a crack at Tojo after awhile.

"This school is a bit different from the Game Commission Training School. Compared to this we sure had a lot of spare time up at Brockway."—Temple A. Reynolds, Boatswain Mate School, U.S.N.A.T.B., Solomons, Md.



"That new boy seems to have misunderstood the instructions."

"Enjoyed reading your autobiography in March GAME NEWS which I received yesterday. Here's hoping this finds you feeling fine and enjoying the weather that June brings there.

"We moved fast and light over here and have seen a lot of things happen, some of 'em not too pleasant, of course. At last though, I've had some of what I joined up for, a far cry from any M. P. work. All in all we're doing O.K. and our company has proven that they can take it and also dish it out, we're proud of 'em. Had the pants damn near scared off me a time or two and not a bit ashamed to admit it either. Those things pass quickly though, at that.

"Lots of *rain, mud and hot sun!* Bare from our waist up till nightfall, and barefooted most of the time in the mud.

"K" Rations and '10 in 1' and not wanting for a thing we must have. We converted a 'Buff' calf into 'baby beef' the other morning. that was too close to our line when it broke day. Best meat since the States. We're watching for its old lady now!

"Will be glad to hear from you. Give my regards to all."—Lt. Robert (Bob) Latimer, 117th M. P. Co. Avn. APO 629, New York.

"I am still down here fighting the battle of Fort Benning as we old-timers call it now. Have been here at the same thing for two years, now and naturally would like a change, but so far there seems none in sight.

"Had a short furlough the middle of June and Pennsylvania never looked more beautiful to me than it did this time.

"One afternoon I took a drive over to the training school and it sure looked swell. The buildings were all newly painted and the grass never looked nicer and greener. Went down to the dam and to the big spring and drank enough of that good cold water to sink a ship. Then went back up and over to the lookout rocks and sat there and looked over at the school until I can still see the picture of it yet. It could not have been more beautiful than it was that day. After sitting up there for over an hour, decided to drive out to the 'Empire Ridge' road and over to Earl Smith's. The laurel was out in profusion and just at its best, pinks, whites and many other colors. Saw a few deer, but not many as there seems to be such a thick foliage this year.

"Would just liked to have had some of the other fellows that are in the service along with me on that trip."—Sgt. Wm. R. Overturf, 6th Btry. Co. B—1st Platoon, Camp Wheeler, Ga.

"Before me lies a PENNSYLVANIA GAME NEWS magazine which I have been receiving from my brother for several months, of all magazines that I read, my favorite is this swell sportsman book. I hail from Renovo, Pennsylvania, Clinton County, one of the best hunting spots in Pennsylvania. Boy what I wouldn't give to be back there in those beautiful forests, just to hike through the hills would satisfy my loneliness for those hills. If I ever see a coconut tree or a palm tree when I come back, I'll whittle it down with an ax.

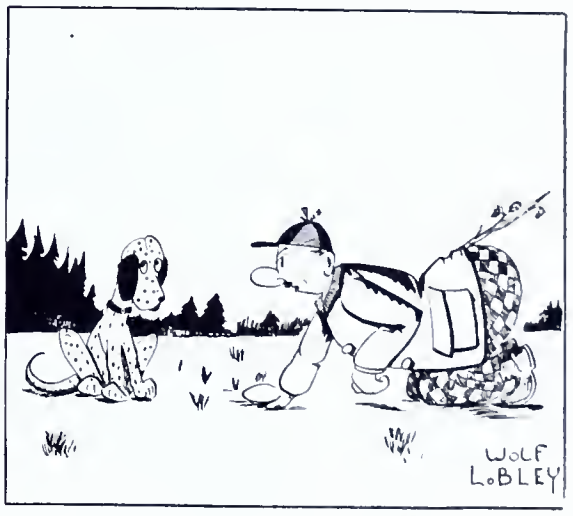
"So far the only game I have seen here in New Guinea were wild boars, opossum, and a little fellow that is the image of a mink. There are many beautiful varieties of birds and parrots. The mascot of our squadron is a three-month-old baboon, which was traded from the natives for two packages of cigarettes. Many of our evenings are spent watching him go through his numerous tricks which he was taught since his transfer to the Squadron. It has been claimed that several deer have been spotted on this island; so far I have seen no signs of any. Do you by any chance know this to be a fact? Whenever I finish reading the PENNSYLVANIA GAME NEWS I pass it on to other fellows who are from Pennsylvania. They must enjoy it a lot because they always ask me if I have received any more or the following month's edition. You can rest assured that this magazine is greatly enjoyed deep in the New Guinea jungles by fellows who are Pennsylvania sportsmen and fighters. We are doing our best to clear up this mess so we can return to all the things we love.

"With much success to your magazine and best of luck to all."—Sgt. James J. Drabic, 89th Attack Squadron, APO 565, San Francisco, Calif.

"At present I'm attached to the Military Police Section of the 1300th Service Unit. I have found that the training I received at the Pennsylvania Game Commission's Training School, and also the field work, has helped me greatly, both in basic training and with my present outfit. We are quartered in a building formerly used by the Goucher College for girls, and have our own mess hall, staffed by army personnel. This includes K.P. duty for us according to the duty roster. Our duties vary from day to day, and consist mostly of street patrol, and patrolling train and bus stations. We also are detailed to train patrol duty between Baltimore and Philadelphia according to duty roster. Working hours change almost daily, and we are rotated to different posts in the city to enable us to become familiar with all phases of the work."—A. J. Zaycosky, 1300th Service Unit, M.P. Section, 24th and Maryland Ave., Baltimore 18, Md.

Who walked in the office while we were putting the finishing touches on this issue but Pvt. W. L. R. (Bill) Drake of the Division of Public Information. He just finished five months intensive training at Camp Crowder, Missouri, and is on his way to Camp Shenango, Pennsylvania. Good luck, Bill!

(Continued on page 29)



"Look'you dope—this is the way it's done."

★ ★ ★ CURRENT TOPICS ★ ★ ★



Jacob Bates Abbott, of Haverford, newly acquired full-time artist and author, looking over a series of colored posters he recently completed for the Commission.

Commission Employs Full-time Illustrator and Naturalist--New Features Planned for Game News

On August 1 the Game Commission engaged the full-time services of Mr. Jacob Bates Abbott of Haverford, nationally known wildlife illustrator and naturalist, to assist in promoting the department's educational program.

Mr. Abbott, a graduate of Harvard where he majored in art and illustration, has achieved an enviable reputation in the conservation field, not only through his drawings, which have appeared on the covers of many of the country's foremost magazines, but through his interesting outdoor narratives, the material for which he acquired in 25 years of intensive study and research of the habits of wild birds and animals.

Having had much interest in wildlife, particularly in mammals since early boyhood, he became seriously interested in bird study in southern California in 1928 where he did research at the California Institute of Technology and much field work with well known California ornithologists. He made four trips to the islands in Salton Sea and was one of the first to study the nesting colonies of gull-billed terns, in the most southerly known breeding place of this species. In 1934 he returned East and has been doing nature illustrating ever since. For a number of years he did considerable independent research at the Museum of Comparative Zoology at Cambridge, Mass.

He has done a large series of bird drawings for the State of New Jersey, and recently illustrated the Encyclopedia of American Birds published by Doubleday Doran Co., New York. Many GAME NEWS readers will remember his outstanding covers, of which the one on this issue is his latest. They will also remember his interesting nature stories, more of which will be forthcoming as time goes on.

He also furnished sometime ago a series of six colored posters depicting various phases of the Commission's program. They are now in the hands of the printer and should be available for public distribution within the next few months.

Mr. Abbott is an associate member of the American Ornithologists Union, American Museum of Natural History, and various other scientific groups, and has made field studies of birds and mammals in California, Arizona, Texas, Delaware, New Jersey, Pennsylvania, Massachusetts and New Hampshire. He served in World War I as a 2nd Lieutenant of the 112th Infantry, 28th Division as a machine gun officer, was gassed at Chateau Thierry and subsequently discharged.

Although all his new duties have not been fully outlined at this writing, the Commission is, nevertheless, hopeful of establishing as one of his first assignments a series of cover paintings of all the game birds and mammals and fur-bearers in the Commonwealth. There is also contemplated a monthly natural history department, as well as a pictorial weekly or bi-monthly series of timely newspaper conservation topics. These matters are now under advisement and will be announced as quickly as possible.

Mr. Abbott's affiliation with the Commission will help reduce very materially the cost in money, time and effort heretofore spent in acquiring art work, the remuneration for which in money alone has equalled, if not exceeded, the compensation he will receive.

In addition the readers of GAME NEWS will be directly benefited by his writings and his research experience. However, he will not devote his entire time to GAME NEWS, but to the other educational needs of the Commission's program, such as designing and illustrating bulletins, posters, exhibits, etc.

RICHARD GERSTELL HONORED

Every year at its annual meeting, the Wildlife Society, a group made up of biologists, game technicians, and sportsmen, award an honor scroll to the man who, in their opinion, has made the most outstanding contribution to the field of wildlife management.

This year the honor was bestowed to one of our own Game Commission family, Mr. Richard Gerstell, Chief of the Division of Propagation and Research, for his paper on "The Place of Winter Feeding in Practical Wildlife Management." This paper has been published by the Commission as a Research Bulletin.

Mr. Gerstell at the present time is on military leave and is serving as a Lieutenant in the Navy.

The members of the Bruin family in Pennsylvania killed 167 sheep, 2 cows, 2 calves, and 1 hog, a total of 172 pieces of livestock, and destroyed 97 beehives during the period June 1, 1943 to May 31, 1944. The animals have been unusually destructive, due probably to scarcity of natural food, and the damage claims amount to over $2,700—just a few dollars short of the $3,000 annual earmarked allocation set aside for paying for depredations committed by these animals. Most of the damage was done in Potter, Tioga and McKean counties.



Photo by Mrs. Ray B. Fox

Millard C. Johnson proudly displaying a fine trophy bagged in Jefferson County.



KNOW THEM BETTER

Few people realize the enormous amount of minute detail that goes hand in hand with the acquisition of State Game Lands, therefore the position of Game Land Engineer and Percy M. Lollich who holds it in the Division of Lands are very likely to be unknown to many. Nonetheless it is a very important one and Mr. Lollich is administering it admirably.

With a wide experience on various engineering projects in this country and Canada ever since 1916, including such positions as Party Chief on a forest survey of over 50,000 acres for the Canada Paper Company, Assistant Engineer for the Central Pennsylvania Lumber Company of Williamsport, Pa., on land and railroad surveys, Party Chief on highway construction for the Michigan and Pennsylvania Highway Departments, together with private work on over 27,000 acres of State Game Lands prior to entering the service of the Commission in 1936, Mr. Lollich is well equipped to handle this exacting phase of the land purchase program.

He received his preparatory education at Kearney Military Academy, Kearney, Nebraska, studied Forestry at Colorado College and Wymans Forestry School where he graduated in 1916, and subsequently completed a three years International Correspondence in Civil Engineering.

DENY HUNTING PRIVILEGES

Hunting and trapping privileges of 47 persons who were responsible for carelessness and negligence in the use of firearms during the 1943 hunting season have been denied for periods of from one to five years beginning September 1, 1944. All revocations were made by the Game Commission at its July meeting, following hearings in each case by a duly appointed referee. Twenty-one such cases were discharged.

In addition, 326 persons were denied the right to hunt or trap because of flagrant violations of the Game Law, for which two-year revocations were approved in most instances.

Because of such infractions, a total of 781 persons will be ineligible to hunt or trap in Pennsylvania this year, and only through such denial of privileges can the lives of innocent persons be protected and the welfare of the Commonwealth's wildlife safeguarded.

DUCK SEASON INCREASED

Due to the steady increase in the continental migratory game bird population duck hunters throughout the country will have ten extra days of shooting and more liberal bag limits this year under regulations fixed by the Federal Government.

The increase in the number of mallards, pintails, and widgeons has been notable and since these are the species mainly concerned with crop damages, the present liberalized bag limit is an effort to so scatter and control them that agricultural losses may be cut down. It is purely a temporary expedient and the extra bag will be permitted only long enough to alleviate the present emergency, according to Federal authorities.

American and redbreasted mergansers, both fish eaters and not considered edible, have become so numerous as to constitute a menace to fish propagation, consequently the Federal Government is permitting a bag of 25 of these ducks in the hope that waterfowl hunters will decrease their numbers to a level where their depredations will not seriously interfere with fish raising programs. Even though not considered edible in the best duck hunting circles, the birds will offer some good shooting possibilities, as well as an opportunity for hunter-anglers to garner some choice feathers for fashioning flies.

In addition to the regular daily duck limit of 10 (which shall not include more than one wood duck), 5 mallards, pintails, or widgeons, either singly or in the aggregate. may be taken. In addition to the daily limit for geese and brant, 4 blue geese may be taken.

The shooting period will be from one-half hour before sunrise to sunset until November. On November 1, shooting as modified by State Law, may not begin until 9:00 A. M., and on November 2 and thereafter it begins at 8:00 A. M. and ends at 6:00 P. M., unless sunset occurs earlier. The taking of waterfowl by means of bait or with the aid of live decoys is not permitted. Sportsmen may retain birds lawfully taken for a period of 45 days following the close of the open season.

See page 21 for seasons and bag limits, etc.

SAFE AT HOME

To escape Colorado hunters, two young doe deer recently jumped the seven-foot fence which encloses the Denver Ordnance Plant, operated by Remington Arms Co., Inc., and are now being fed by patrol guards at the huge government-owned plant, which is daily turning out tons of small arms ammunition for the armed forces.

At Remington's Bridgeport, Conn., plant a herd of deer has for years been content to remain in the 327-acre park, where much firing is done each day, apparently better satisfied to associate with men handling controlled ammunition than take their chances in the native habitat.



KNOW THEM BETTER

A Franklin Countian by birth, Harold L. Plasterer, Chief Clerk in the Division of Protection, a position to which he was assigned only recently, came to Harrisburg in 1923 and shortly thereafter began his service with the Game Commission in the Bounty Division. He could not have found a better niche, and his early experience as a trapper coupled with an enviable knowledge of furs in after years, culminated in his being appointed principal bounty claim clerk in 1936. In the interim he served respectively as a pelt examiner, trapping instructor, and traveling game protector.

"Pat", as he is usually called by all his associates, is a true conservationist and a naturalist of no mean ability. He is a keen student not only of wildlife but of wild flowers and is an active member of the Harrisburg Natural History Society. His hobby is shooting crows.

He was educated in Shippensburg where he attended high school, and in Harrisburg where he was a student of the Wharton School of the University of Pennsylvania. Since the Commission recently made the bounty division an integral part of the Devision of Protector, Mr. Plaster's responsibilities naturally assume greater proportions, but by his past record we know that he will be able to cope with them.

BOUNTY COOPERATION URGED

In an effort to prevent a general exodus from the building in which its predatory animal control section is housed, the Commission urges all sportsmen and farmers who send in Goshawks or Great Horned Owls for bounty to draw the birds first, then salt well and pack them with excelsior or newspaper. Several "badly spoiled" specimens arrived recently, and the Commission fears that unless proper care is taken of the birds before shipment the Express Company may refuse to deliver them.

A reward of $4.00 is paid on adult Great Horned Owls and $2.00 on fledglings; and $2.00 on adult Goshawks and $1.00 on fledglings killed during the year beginning July 15, 1944.



Hon. Robert Lamberton, Vice-president of the Game Commission, with two of his friends proudly display a sizable bag of crows. His companions are, left, Dr. Marlin W. Heilman, Tarentum, and center, George W. Keppler, Meadville.

NOTES FROM THE FIELD

"About 7:30 P.M., Friday, June 23, a tornado struck the western section of Washington County and travelled in a southwesterly direction across the county. This storm did much damage to the trees in the woods through which it passed. It uprooted and broke off many den trees, killed some game and destroyed much property. Some of the larger pieces of timber may become better rabbit territory as a result of this destruction due to the fact that it will be impossible to remove much of the fallen timber."—Game Protector Carl C. Stainbrook, Washington.

"The outstanding event in Greene County during June was the tornado that swept across the county from the neighborhood of Amity, through Chartiers and Dry Tavern and on across the river to Fayette County. It left death and destruction in its path wherever it went, uprooting trees three feet in diameter and even blowing houses away. Flying debris killed several people. I heard of some dead game and no doubt there was plenty of it killed; also many trees that had been food bearers and homes for game were completely destroyed.

"The next event that was unusual was the appearance of a couple of beavers in the dam across Browns Run in Morgan Township that furnishes the water supply for the coal town of Mather. They are very tame and approach to within a few feet of people who go to the dam to see them every evening. They cut down willows and apple trees and sit there as unconcerned as if they were raised in captivity. Their house is built within seventy-five feet of an improved road, making it possible for anyone to see them in the evening between seven and nine o'clock without even leaving their cars.

"I reported them to the Harrisburg office, which in turn notified Mr. Bob Ford of Homestead. He has been here at least four nights taking pictures of them under artificial lights. Pictures were taken of them swimming, diving, eating and apparently cleaning each other's coats. They are last year's beavers, apparently on the road, and they must have come a good way because to the best of my knowledge there are no others in the vicinity."—Game Protector John F. Blair, Waynesburg.

"A group of Members of Port Matilda Sportmen's Association went to the farm of Blowers Woodring on Wednesday afternoon, June 12, and aided in hauling in his hay crop.

Mr. Woodring has just returned from the Philipsburg Hospital, where he was a surgical patient. His cooperation to Sportsmen by allowing them to hunt on his land is greatly appreciated and this was one deed the members could do for him in return.

Members who participated were George Rhule, Charles Steele, P. B. Woodring, Rex Ganoe, A. Q. Williams, John Miles, Harry Marshall, Ellery Knarr, John Wagner, Junior Knarr, Boyd Wagner and Jerry Seeger.

Lunch was served by Mrs. Woodring and Mary Jane Harpsters." — Jerry Seeger, (member) Port Matilda Sportsmen's Association.

"On Sunday morning, June 25, I received a call that a dead deer was in the back yard of a Mr. Haus, 729 North Front Street, Reading. This being in the central and thickly built up section of the city, I called Deputy Walter Ganster and asked him if he would investigate the report. He called back that a buck deer had been in several yards of the neighborhood and had finally entangled its head in a wire mesh fence. A beautiful bed of flowers on either side of the fence was ruined during the struggle."—Game Commissioner Harry H. Rickert, Boyertown.

"I received a call from M. McKenzie, Akley, Pa., R. D. No. 2 that he had lost over a hundred dollars worth of chickens from raccoon depredations, and not being a trapper, he wanted to know if I would help him. Deputy Clude Hansen and I drove up and set a couple of traps for him. The first night Mr. McKenzie checked his traps at midnight and found a skunk. He killed the skunk and reset the trap. In the morning he had a large female raccoon.

"The next night he caught a stray cat and a mongrel dog. A night or two later he caught a great horned owl. The bait used were chickens killed by the raccoon and all traps were set on the ground beside the coop. At this writing Mr. McKenzie called and said he had caught two more skunks."—Game Protector George L. Norris, North Warren.

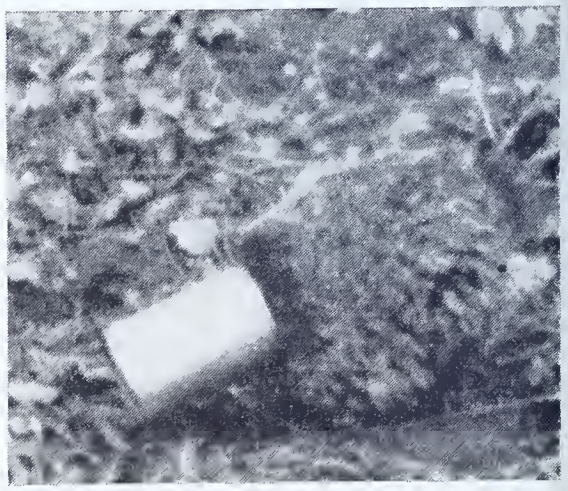


Photo by Cpl. Hugh B. Wagner, Jr.

While hunting crows recently in Lebanon County Cpl. Wagner and a friend observed a groundhog walking around in circles with what they thought was a piece of paper in its mouth. Instead the inquisitive animal had stuck its head in a tin can and was at a loss to know what to do about it. After snapping a picture of the hapless creature the young men removed the can and the grateful animal went on its way.

"Have a pet red fox kit (Red) which I got when about two days old. He is very tame and I let him out of his pen for a run once in awhile. My boy has a young white leghorn rooster which he got for Easter. A couple of weeks ago I let the fox out and did not see the rooster behind me. The fox started to sneak up and got set to spring on the rooster just as it spied him. The rooster, much to the kit's surprise, let drive at him. The fox fled and the rooster chased him out of the yard, which proves that a good offense is also a good defense. The rooster chases the kit every time he gets out now. The fox teases the rooster but stays out of reach.

"Now you fellows that claim foxes kill chickens, come on. Tell those fox hunters I'll sell them a good fox propaganda picture.

"Some day this rooster will run into a counter-attack, and then 'finis.' "—Game Protector Frank L. Coen, New Castle.

"On Thursday morning, June 8, while travelling in the South Mountains, Cumberland County, with Mr. C. R. Studholme, Research Assistant, Shippensburg, we observed a ruffed grouse crossing the road a few yards in front of our car. We brought the car to a quick stop as we saw a considerable number of chick grouse scrambling through the underbrush. We were unable to make an accurate count of the chicks, but thought there were about fourteen, possibly three or four days old. We returned to the car and were about to leave when we heard a grouse chick making a noise as though something had caught it. I looked through the underbrush and saw the chick fluttering. Hurrying to the spot I found the youngster dangling by its leg from the twig of a sweet fern about a foot from the ground. In releasing the bird I found it had really become fast and in all probability would have died. This is one more cause of mortality among young grouse."—Game Protector George D. Bretz, Shippensburg.

"It would greatly please me to see some restrictive measure placed on the house cat in our State. I am well satisfied that the stray house cat as well as the home tabby greatly deplete our stock of young rabbits during the summer months. It is a very common sight to see some cat carrying or dragging a young rabbit around, and usually these cats are too close to some house to safely write 'finis' to their escapades. I do not think there is any predator, wild or domestic, destroys more young rabbits than the cat."—Game Protector Maynard R. Miller, Honesdale.

"While on a trip from headquarters to Game Lands 176 accompanied by Homer Hess we were crossing Buffalo Run valley on Route No. 322 when something fell out of an oak tree that leaned over the highway onto the cement road. It seemed to be stunned so Hess jumped out and finished killing a weasel." . . .

"I killed two large yellow rattlesnakes on Wallace Run, State Game Lands 103 one afternoon. Both were about 4 feet long."—Game Protector Elmer L. Pilling, Philipsburg.

"I now have data of one sort or another on 39 quail nests. Of course in some cases the information is not worth much. However I have good data on many. On 12 I have hatching figures; and am watching one nest now (I had three active ones Saturday, but two of them hatched over the week-end) and if nothing breaks it up I'll have some more good data.

"Reports of broods are coming more regularly now. However in nearly every case they are not accurate as to the number of chicks in the brood, nor as to the age of the chicks.

"Ike Baumgardener killed a Broad-winged hawk Saturday. I opened the stomach to have a look for myself before putting it in formaldehyde. It contained two grasshoppers and a very small fledgling that I was unable to identify. This fledgling was a perching bird of some sort; and must have been taken from the nest, as it had no feathers except a very few pin feathers. It was about the size of a peanut shell."—Field Research Investigator C. R. Studholme.

"On July 1 I had the privilege of seeing one of the most beautiful sights an outdoorman can see in a life-time. It was the invasion of Brady's Lake, Monroe County, by the fishermen, all with the same thought —catching a bass or two and enjoying the privilege of fishing from boats again. At 5:15 A.M. there were about 1000 fishermen hard at work trying their luck."—Game Protector Peter A. Zikosky, Minooka.

"Corn on the food patches on Game Lands No. 95 this year was high on July 1—an excellent stand. This is a year of plenty in this locality. We have mast, fruit, berries and all the necessary elements to insure a good food supply for game this fall and winter. We also have an excellent crop of







Photo by Leo A. Luttringer, Jr.

Informed that a Killdeer had laid her eggs on a gravel road near Camp Hill, just across the river from Harrisburg, your editor took several photos by remote control, and succeeded in getting several shots of the bird coming to and sitting on its rocky nest. Although numerous cars passed within a foot of the incubating bird it paid no attention to them. Upon walking by, however, it would jump off the eggs, feign crippledness, and try to lure me away from the spot.



Lloyd G. Cramer, of Sharon, with big buck killed in Jefferson County in 1940.

young squirrels, rabbits, raccoons and a fair showing of grouse. Ringnecks are plentiful in the southern end of the county, and all we need is to get this war over for a dandy hunting season."—Game Protector R. P. Schmid, Slippery Rock.

"On July 7 Game Protectors Woodward and Bachman and myself were hunting crows near Wills Mountain. We drove to the turkey area on State Game Lands No. 48 to help gather turkey eggs. I was looking for nests in the thick clump of bushes when I nearly stepped on a rattlesnake. The reptile was sucking turkey eggs. There were five eggs in the nest and all were crushed. Three of them had been completely cleaned out and the snake was working on the others. With the assistance of Bachman and Woodward the snake was killed. It had seven rattles.—Game Protector John S. Dittmar, Loysburg.

"Noticed many small pheasants recently, some as large as full grown quail, though not so many per flock. Young rabbits and gray squirrels also are plentiful and seem to be on the increase. The delayed haymaking due to rain was in favor of the game as many of the birds had already left the nests."—Game Protector R. E. Holtzapple, Mt. Gretna.

"On Saturday June 10 while returning from the rabbit propagation area at Paradise Furnace, about ¼ mile from the area I observed a groundhog with fur comparable in color to a light yellow domestic cat. Mentioning this experience to some groundhog hunters I was informed that about 2 miles from my headquarters they had been shooting on several occasions at an albino woodchuck last season, but scored no hits."—Game Protector William Lane, Hustontown.

"The rabbit crop this year is looking very good. I noticed many young ones in my travels over the county. I also observed a few young grouse, though not an extra large supply, and many young groundhogs. The deer are red now and look very well. They seem to have a very good supply of fawns."—Game Protector Clyde W. Decker, Clearfield.

"Numbers of black bears have been seen during the last half of June. On June 20, while patrolling on Game Lands No. 116, a black bear came up to within 20 feet of where I was standing. Two hours later the driver of the Sunoco gas truck saw a very large black bear cross Route 6 in Dingman Township near Shohola Falls Post Office. Several others have reported seeing black bears in their localities. It appears the animals are doing a lot of travelling . . .

"Large numbers of small woodchucks are being observed even in the forest areas, in fact many more young were observed this month than during the past few summers . . .

"Spotlight shooting started about the last week of this month, and with rationing and no deputies, it looks as though the real night work has begun . . .

"Coveys of grouse with from four to ten birds have been observed; an exception was a covey of 16 seen near Rock Hill Pond . . .

"Many broadwinged hawks have been seen, particularly along the old woods roads and the less frequented back country roads . . .

"Predatory creatures killed this month included dogs, cats, crows and hawks."—Game Protector John H. Lohmann, Milford.

"While talking with Deputy Lawrence Reib the other day after seeing a great horned owl lying in his yard, he told me the winged predator was the fifteenth one he caught on his farm in the last two years.

"The other day while on patrol on the Tionesta Creek near the highway south of Kellettville I found an albino buck lying there with a broken back. I disposed of the animal at once. There were no marks on its hide to show how it met its untimely death."—Game Protector Carl B. Benson, Tionesta.

"Flood waters that covered all the low lands in the northeastern part of Tioga County last week probably killed a great number of young rabbits and ringnecks."—Game Protector Hugh E. Baker, Wellsboro.

"Went to make repairs to Dothan valley road gate so Mr. Foust could put his lock on, and found that someone had damaged the lock and had pulled the sign-board off. I took the pieces of board to the State Police in Chambersburg to see if they could get fingerprints. This is the second time that the sign has been torn off. . . .

"Game feed of all kinds will be plentiful in this section, and I see lots of squirrels and grouse, but not too many turkeys."—Game Protector D. H. Franklin, Upper Strasburg.

"About 7:00 P.M. on June 23 a hurricane hit Indiana County starting around Willet in the northwestern part of the county and ending around Strongstown in the southeastern part. It varied in width from one-quarter to a mile wide, causing great property damage and killing two people and injuring several. I assisted State Police in clearing roads, directing traffic and looking for casualties until 3:00 A.M.

"A few days ago I received a post card from a party in Indiana as follows: 'Game Warden of Indiana, your rabbits, rats and squirrels are causing me some damage. If you don't want them hurt you had better come and get them.'"—Game Protector Bruce W. Catherman, Indiana.

"Game Protector John Blair of Greene County recently located a pair of beavers building a house and working in a water company reservoir in the vicinity of Mather. Lecturer - Photographer Robert Ford of Homestead, Pa., was informed and made a number of trips in an effort to obtain some good close-ups of the animals at work. With the assistance of Mr. Blair and Supervisor Rollin Heffelfinger, he took several hundred feet of colored film, a number of 'stills' and some black and whites, a lot at night with the use of artificial lights. It is hoped some of this material will be available to the Commission at a later date. The animals appeared unusually tame and were undisturbed by either the presence of humans or the use of lights.

"The freak tornado which recently passed through parts of western Pennsylvania causing untold property damage and loss of human life also wrought much havoc in the forest area through which it travelled. Practically all timber in its path was leveled for a width of from 100 yards to as much as a mile. Refuge roads were blocked, wires broken and signs demolished. Just how much game was actually killed is hard to estimate. Song birds caught in its fury were undoubtedly killed; quite likely deer as well. Raccoons and squirrels caught in den trees also probably were destroyed. One redeeming factor may be the additional amount of browse furnished by the leveling of this forest growth."—Game Protector Rollin Heffelfinger, Irwin.



Photo by Wm. Foxall

Left, Johnny Mast and Leon Taylor, Philadelphia, with their catch of fifteen ringtails last season, all taken within twenty miles of the Quaker City.

"In contacting sportsmen and farmers in Westmoreland County I find that we have a nice breeding season and a good increase of young game, and expect to have plenty of feed. Am not having much complaint of damage to gardens by game. . . . On June 13 I attended a meeting of sportsmen and farmers in the Livermore section which was well attended and showed very good feeling between the both groups. Gave a talk on game conservation and predator control."—Game Protector Wm. H. Matthews, Rector.

"The tornado of June 23 struck several places on Game Lands No. 26. The section damaged was a part of the Cedar Swamp area where the storm followed the boundary line for some distance, blowing all sizable timber down, etc. The gale then proceeded into Refuge No. 26A where it struck again in the section where the refuge road switches. It crossed the refuge road three times and filled it with fallen trees, stumps, etc. It then passed on to Rhoades Run section where it followed the old road and closed same for approximately one-half mile. The total area struck that I saw would estimate from 40 to 50 acres, on which was some pretty fair timber . . . "

"In the past week while painting boundary lines on No. 26 the men and I have seen three fawns and two flocks of young grouse."—Game Protector Jack L. DeLong, Portage.

"Game food looks very good at present throughout this section. Grapes, dogwood and ground ash, acorns and nuts are plentiful."—Game Protector Orrie E. Smith, Amaranth.

"There have been several flocks of young turkeys reported to me this year, most of them with from 11 to 15 in each flock."—Game Protector R. F. Turley, Martinsburg.

"Prospects for a fair nut crop are good. Most all nut-bearing trees have a fair crop developed, with beech being the heaviest."—Game Protector Philip S. Sloan, Mehoopany.

"Quite a few fawns have been reported as seen. None have been picked up as yet. I have seen several groups of young grouse during the past month."—Game Protector Paul L. Failor, Mt. Pocono.

"Despite the inclement weather this past spring, turkey hens are showing up at scattered locations with fairly large numbers of young. Evidently with all the rain we had there were enough warm and hot days interspersed to enable the young to survive. Groundhogs seem to be more plentiful this year than last. Rabbits as yet have not been noticed to any great extent along the roads, indicating that they may not be too plentiful to date."—Game Protector Ross G. Metz, Petersburg.

"On June 30 I went to the turkey propagation area to try and find out how many young turkeys were in the area. It was some job. There were about three different sizes of birds in the area, some almost the size of grouse, some about the size of quail, and others that looked like day-old chicks. I saw five different hens with young on the inside of the area and one hen on the outside. The way she acted some of her flock was on the outside and some on the inside. There was one hen in the area that never nested. She would lay her eggs along the fence in a different place. Almost every time she layed an egg it was broken. They seemed to have a very thin shell. There were three gobblers in the area most of the time this year. We had a very hard rain storm on June 23. I found four young turkeys that looked as though they had drowned in this storm. I don't know how many more were lost this way. I would say I saw from 75 to 80 young birds on June 30 when I opened up the gates on the area."—Game Protector Edward Shaw, Leeper.

"During the past month I killed 27 crows, 6 stray dogs, 2 porcupines, and 1 sharp-shinned hawk. . . .

"On June 23 I saw a swarm of honey bees. They were heavy enough to break down two limbs on a Sumac bush. At the time it was raining a little and they were quite tame. I watched them for some time and every few minutes several bees would take off to hunt for a suitable home.

"I put up some crows in the corn field to keep the other crows from pulling out the corn, but they only lasted a couple of days because some turkey vultures decided to make a meal on them."—Game Protector George H. Burdick, Tidioute.

"In many cases where woodchucks cleaned out holes dug previous to this year I noticed bones from rabbits and pheasants. At one particular hole on Game Lands, No. 146 there was quite a pile of bones and the remains of at least four rabbits and several other animals. This would indicate that in many cases these retreats are death traps for game when pursued by weasels. minks and gray foxes. These predators do not stop when the game they are after go into a hole but continue after their prey."—Game Protector Elmer D. Simpson, Cambridge Springs.



Photo by Dennis R. Smith

Above is a 16 point, 185 pounder killed the second day of the 1943 season by Robert Doney, 15, on White Deer Mountain. He was a proud boy. The antlers had a spread of 23 inches.



Photo by John Reto

Joseph Reto, Kunkletown, and his two terriers, Nell and Spider, with a nice bag of gray foxes taken last winter in Northampton County.

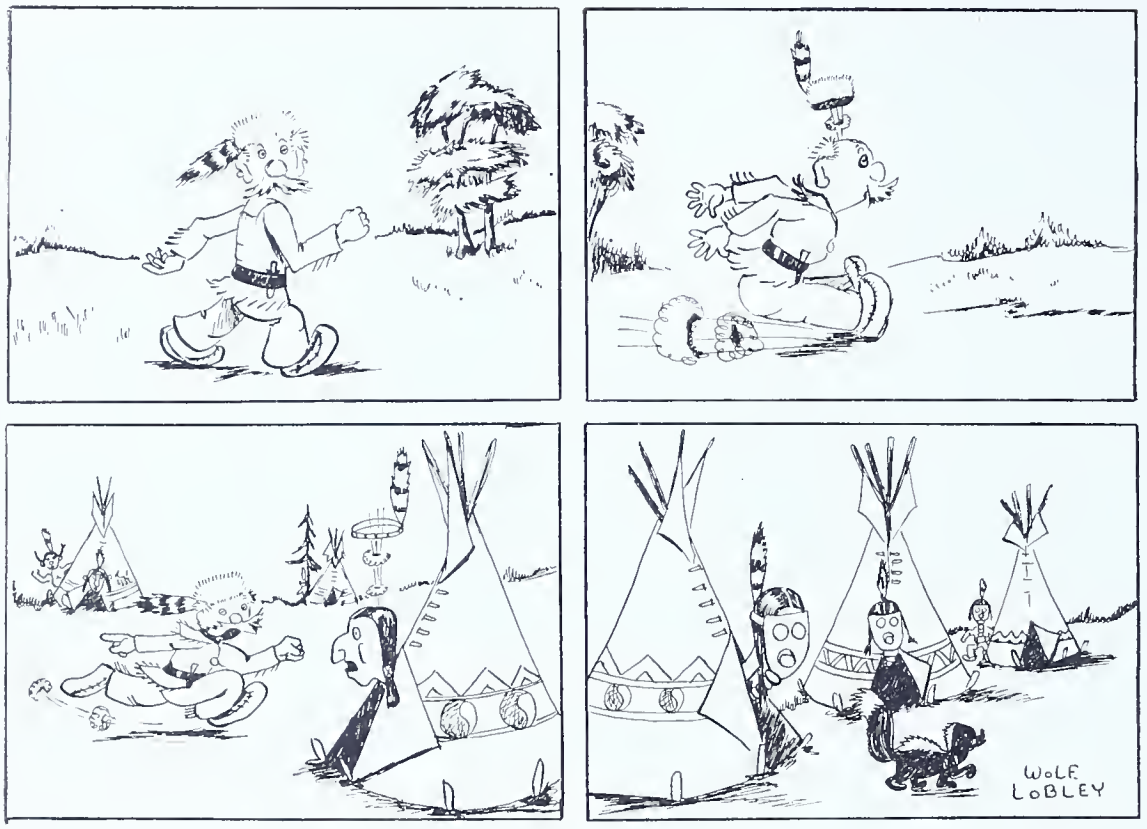
"While plowing a sod field a few weeks ago a ringneck pheasant hen suddenly flew out of the tall grass between the tractor, and plows. I did not see the exact spot she came from, but noticed as she flew across the plowed ground that she seemed to be injured, and could hardly fly. I decided to investigate, so stopped the tractor and walked back and discovered that the rear wheel of the tractor had run over a nest containing sixteen eggs. The part that amazed me was that the hen apparently sat still until the wheel was about, or did run over her, as there were feathers all around. I then looked for the hen, which had flown into the woods some 100 feet away, but could not locate her, so I do not know if she was injured enough that she died or not."—Clifford Bassett, Sunbury.

FEATHERED WEATHER PROPHET

A South Dakota farmer's pet pheasant was wounded in the leg by an unknown hunter. The farmer patched the injured member up with a splint but the bird's leg was left with a definite "rheumatic condition."

For years now, this pet pheasant has served the farmer as a weather forecaster. Before the farmer goes to bed in wintertime he takes a look to see where Old Pete is. If he's perched on the fence, everything is okay. If he's in the chicken house, it's a sure sign some "weather" is on the way, and the farmer calls his boys to help get the stock in.

"Sometimes Old Pete has a hard time deciding," the farmer says. "Sometimes he'll go in and come back out to his roost on the fence three or four times during early evening. But by bedtime, he's made up his mind and he's always right."



Federal Funds Apportioned Under Pittman-Robertson Act

The apportionment of $806,500 among the States for the restoration and development of their wildlife resources during the fiscal year 1945 under the terms of the Pittman Robertson Act was announced recently by Secretary of the Interior Harold L. Ickes.

The sum allotted to the States for 1945 is the smallest since the Act became effective on July 1, 1938. Apportionments in the three previous years provided $910,000 in 1944; $1,128,000 in 1943; and $2,530,000 in 1942.

Since participating States are required to contribute 25 per cent of the cost of projects, the total Federal apportionment of $806,500 plus the States' contributions will make $1,075,333 available for wildlife restoration projects this year. All projects are approved by the Fish and Wildlife Service on behalf of Secretary Ickes to determine whether they are sound in character and design.

The funds used by the Federal Government for the Federal Air program come from the 10 per cent excise tax on ammunition and sporting arms. Although the income from this tax is earmarked for wildlife restoration work, it can be expended only on the authorization of Congress. The authorization this year was $900,000, of which $82,500 will be required for administration of the program, $9,000 for the conduct of wildlife projects in Alaska and $2,000 for the same purpose in the Virgin Islands, leaving $806,500 for the States.

Michigan, Texas, and Pennsylvania will receive the three largest of the allotments which are made in accordance with the size of the States and the number of hunting licenses they sell. California, New York, and Ohio rank fourth, fifth, and sixth, respectively.

All States are eligible to participate in the apportionment of the funds with the exception of Nevada, which has not passed assent legislation, and South Dakota. The latter was ruled ineligible to participate last year due to legislation enacted in the State in March 1943 which resulted in a diversion of license receipts. Under the terms of the Pittman-Robertson Act funds may not be provided to States which divert license fees paid by hunters to any purpose other than the operation of the State Fish and Game Departments.

Allotments to each State for 1944-45 are as follows: Alabama, $12,930.73. Arizona, $17,052.30; Arkansas, $10,312.82; California, $34,493.03; Colorado, $23,654.02; Connecticut, $2,538.83; Delaware, $1,054.23; Florida, $11,061.79; Georgia, $10,977.01; Idaho, $17,211.58; Illinois, $23,673.08; Indiana, $23,652.97; Iowa, $18,504.73.

Kansas, $15,851.77; Kentucky, $9,234.75; Louisiana, $13,011.88; Maine, $9,710.47; Maryland, $5,504.77; Massachusetts, $5,279.41. Michigan, $47,452.82; Minnesota, $29,734.80; Mississippi, $12,886.19; Missouri, $19,724.82; Montana, $24,836.88; Nebraska, $16,698.95; Nevada, $15,561.47. New Hampshire, $4,117.49; New Jersey, $7,189.62; New Mexico, $17,506.10; New York, $34,161.28; North Carolina, $14,036.68; North Dakota, $12,125.47; Ohio, $33,099.96.

Oklahoma, $14,205.85; Oregon, $18,342.60; Pennsylvania, $38,416.59. Rhode Island, $638.75; South Carolina, $8,431.74; South Dakota, $15,808.87; Tennessee, $12,312.05; Texas, $41,692.55; Utah, $16,000.46; Vermont, $3,628.56; Virginia, $13,048.42. Washington, $22,299.09; West Virginia, $11,420.90; Wisconsin, $20,303.40; and Wyoming, $15,107.47.

MILLIONS IN FURS

The fur catch in the United States and Alaska last year was worth approximately $100,000,000 to trappers, Dr. Ira N. Gabrielson, Director of the Fish and Wildlife Service of the Department of the Interior, announced recently after a survey of State and Territorial statistics.

At least 19½ million animals were taken by trappers during the year and this figure may be considerably below the actual take since a number of states do not keep accurate records of the catch, Dr. Gabrielson declared.

Louisiana, in the number of pelts taken, far out-ranked all other states, with a total of 4,470,498. This was due to the tremendous muskrat population found along the many miles of creeks, rivers, and bayous in the state. Out of Louisiana's total take of pelts, 4,076,785 were muskrat.

Minnesota was in second place with a take of 1,667,794 fur animals, followed by Wisconsin with 1,559,207, North Dakota with 1,403,233, Michigan with 895,540, Maryland 800,000 and Pennsylvania 779,681.

Although nearly half the furs sold in this country before the war were imported and these imports, except for karakul, rabbit, and a few other species have been much reduced, the U. S. fur trade is still brisk. The Bureau of Internal Revenue collected $54,925,218 in taxes on sales of fur and fur-trimmed apparel sold at retail during 1943. This sum, representing a 10 percent tax, indicates that retail sales of fur apparel for the year amounted to nearly $550,000,000.

The tax collection report shows that New York led the country in fur-apparel sales, followed in order by Illinois, California, Pennsylvania, Massachusetts, Ohio, Michigan, Maryland, New Jersey, Minnesota, Connecticut, Wisconsin, and Indiana. Such sales were up in most states and in some, where new war industries had been located, sales nearly doubled.

Regulations governing the trapping of fur animals are made by the individual states, and not by the Federal government. In some states either no information as to the number and kinds of animals trapped is required by the State government or such information is meager. For this reason estimates as to the annual take of fur animals for the country as a whole are necessarily inexact.

A detailed resume of the fur catch in each of the reporting states is now available as Wildlife Leaflet 253 from the Fish and Wildlife Service, Department of the Interior, Chicago 54, Illinois.

The Arctic Tern is the champion long-distance bird. Its annual trip totals between 10,000 and 11,000 miles from its breeding grounds in the North to wintering quarters in the southern seas. The round trip is over 20,000 miles.

FOX PETITION GRANTED

Last month we announced that on June 25 the Susquehanna County Fox Hunter's Association filed a petition for a special season to hunt or chase foxes with dogs in that county during 1944. This petition was granted. The special fox season in Susquehanna County began August 14, and is valid until March 31, 1945.

DR. BELL RETIRES

After an association of 28 years with the Fish and Wildlife Service, of the United States Department of the Interior, and its predecessor agencies, Dr. William Bonar Bell, principal biologist and chief of the Division of Wildlife Research, retired on August 1.

"We are reluctant to lose Dr. Bell," commented Dr. Gabrielson, Chief of the Service. "He has been a tireless worker. From the very day he joined our organization (then the Bureau of Biological Survey of the U. S. Department of Agriculture) on July 1, 1916, as an assistant biologist, he took hold of his work with ability and enthusiasm. We shall miss him, both officially and personally."—So will those of us who have had association with him. Ed.

"BYE (BUY) BABY BUNTING"

When the skin of the lowly rabbit, hunted by more American sportsmen than any other single species of game, is incorporated into Milady's "fur" coat, Molly Cottontail finds she has an impressive array of relatives. Some of her kinfolks become known as: French Seal, French Beaver, Beaverette, Chapchilla, Chinchillette, Coney, or Cony, Ermiline, Erminette, Marmotine, Moline, Near Seal, Polar Seal, Lapin, Sealine, Squirrellette and Squirrelline.

HUNTERS YOU KNEW

Gun-Toten Tom

There are guys who have fun
Getting gay with a gun
  And just such a chap was Tom Carroll.
He'd flip it; he'd flop it;
He'd catch it; he'd drop it;
  And pull it about by the barrell.

His last negligence
Was his crawl 'neath the fence,
  And he towed his gun as he went;
Of course it was loaded,
Trigger tripped, shell exploded;
  He hadn't a chance to repent.

—*Carsten Ahrens.*



PENNSYLVANIA GAME COMMISSION

OFFICIAL 1944 OPEN SEASONS AND BAG LIMITS

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. **On November 1 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. (See Special Regulations for hours to set traps in open counties.) Raccoons may be hunted at night, with a noon-to-noon daily limit.

UPLAND GAME (Small game possession limit three days' bag)	Bag Limits Day	Bag Limits Season	Seasons Open	Seasons Close
Ruffed Grouse	2	10	Nov. 1	Nov. 30
Quail, Bobwhite	5	15	Nov. 1	Nov. 30
Hungarian Partridges (Statewide)	2	8	Nov. 1	Nov. 30
Wild Turkeys (See 9 counties closed below)*	1	1	Nov. 1	Nov. 30
Ringneck Pheasants, males only	2	12	Nov. 1	Nov. 30
Rabbits, Cottontail	5	25	Nov. 1	Nov. 30
Squirrels, Gray, Black and Fox (combined kinds)	6	24	Nov. 1	Nov. 30
Squirrels, Red	Unlimited		Nov. 1	Sept. 30, 1945
Grackles (commonly called Blackbirds)	Unprotected until Sept. 30, 1945			
Hares (Snowshoe Rabbits)	2	6	Nov. 15	Nov. 22
Raccoons, by individual or hunting party*	4	20	Oct. 23	Feb. 1, 1945
Raccoons, by trapping (Statewide)*		20	Nov. 1	Feb. 1, 1945
Woodchucks (Groundhogs)	5	Unlimited	July 1	Sept. 30
Bear, over one year old by individual	1	1	Nov. 27	Nov. 30
Bear, over one year old by hunting party of three or more	2	2	Nov. 27	Nov. 30
Deer, male with two or more points to one antler	1	1	Dec. 1	Dec. 16
Deer, as above, by hunting party of six or more	6	6	Dec. 1	Dec. 16

NO OPEN SEASON—Sharp-tailed Grouse, Doves, Cub Bears, Antlerless Deer and Elk.

FUR-BEARERS—(See note under Special Regulations)*

Minks and Skunks*	Unlimited		Nov. 1	Feb. 1, 1945
Otters*	Unlimited		Nov. 1	Feb. 1, 1945
Muskrats (By traps only)*	Unlimited		Dec. 1	Feb. 1, 1945
Beavers (Traps only. See 31 counties closed below)*		2	Feb. 15	Mar. 1, 1945
Opossums	Unprotected until September 30, 1945			

*SPECIAL REGULATIONS

Turkeys—Counties of Clarion, Forest, Jefferson, McKean, Potter, Snyder, Tioga, Warren and Westmoreland closed.

Raccoon Hunting—The season begins at noon on the opening date, and ends at same hour on the closing date.

Raccoon Trapping—Traps not to be placed before 9 A. M. on the opening date (see instructions below concerning lifting traps on closing date).

Beavers—No trapping in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bucks, Cambria, Cumberland, Delaware, Fayette, Franklin, Fulton, Greene, Huntingdon, Indiana, Juniata, Lawrence, Lebanon, Lehigh, Mercer, Mifflin, Montgomery, Northampton, Perry, Philadelphia, Somerset, Washington, Westmoreland, and York. **Non-Residents may not trap beavers. One person may set, tend or operate 10 traps only. Traps must not be placed closer than 15 feet** from the waterline on any established beaver houses. **Pelts must be tagged within 10 days** after season, and may not be sold or otherwise disposed of until properly tagged. Present them to Protector in District or County where trapped.

Trapping—Traps for fur-bearers and raccoons not to be placed before 9 A. M. on Nov. 1, or before 8 A. M. on any later opening date for trapping. The season on the last date indicated for trapping closes at 12 o'clock noon to permit removal of animals caught on the last night of the season and lifting traps by daylight.

Snares—May be used without springpoles for taking predators from December 16 to March 31, 1945, in all counties except Allegheny, Armstrong, Beaver, Berks, Bucks, Cambria, Chester, Dauphin, Delaware, Fayette, Greene, Indiana, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Somerset, Washington, Westmoreland and York.

FEDERAL SEASONS MIGRATORY GAME BIRDS

	Daily Limits	1944 Open Seasons (Sundays Excepted)
Rails and Gallinules (except Sora and Coots), combined kinds	15	Sept. 1-Nov. 30
Sora	25	Sept. 1-Nov. 30
Coots	25	Oct. 14-Jan. 1, 1945
Wild Ducks, except American and Redbreasted Mergansers (See Exceptions)*	10*	Oct. 14-Jan. 1, 1945
American and Redbreasted Mergansers	25	Oct. 14-Jan. 1, 1945
Wild Geese and Brant	2*	Oct. 14-Jan. 1, 1945
Woodcock	4	Oct. 14-Oct. 28

***Exceptions**—In addition to the regular daily duck limit of 10 (which shall not include more than one (1) Wood Duck), 5 Mallards, Pintails or Widgeons, either singly or in the aggregate, may be taken. In addition to the daily limit for Geese and Brant, 4 Blue Geese may be taken.

Possession Limit—Ducks, Geese, Brant, and Woodcock, twice the daily bag (except on opening day), but only one (1) Wood Duck and the daily limit of American and Redbreasted Mergansers. Other migratory game birds, daily bag only. Possession 45 days after season.

No Open Season—Wilson's Snipe (Jacksnipe), Doves, Ross's Geese, and Swans.

Shooting Hours—(Eastern War Time). All migratory game birds: From beginning of respective open seasons to October 31 inclusive, one-half hour before sunrise to sunset; November 1, 9 A. M. to 6 P. M.; November 2 to end of respective seasons, 8 A. M. to 6 P. M. (unless sunset occurs earlier, when Federal sunset regulations automatically applies). **Exception:** On the open waters of Lake Erie the Federal one-half hour before sunrise to sunset regulation applies throughout the waterfowl season, except on November 1, when shooting before 9 A. M. is unlawful.

(AS FIXED BY COMMISSION AT MEETING ON MAY 6, 1944)

An Accounting to the Sportsmen

(Continued from page 9)

their bank balance, and "reserves." These and sundry questions can best be answered by subdividing the Game Fund balance as of May 31, 1944 into its several component parts, as follows:

1. *Balance as of May 31, 1944, $2,095,551.87*—The balance available, per statement which accompanies this article, was the largest amount in the Game Fund at the end of any fiscal year in the Commission's history. As previously stated, this does not mean that under the current license fees the Commission finds it difficult to expend judiciously all the monies paid into the "Game Fund" by the sportsmen. Information which appears elsewhere in this article fully substantiates the need for unusually large reserves at this time—a financial safeguard which most industrial concerns have or are providing.

2. *Commitments as of May 31, 1944, $207,137.99*—In the orderly course of business it becomes necessary to make commitments against the current operating expenses for a given year which cannot be paid during said period. Money for the payment thereof must be deducted from the fiscal year balance.

3. *Unallocated and unexpended balances, $392,735.48*—Under a sound financial program established many years ago, the Commission expects to have a sizable surplus in the nature of unallocated and unexpended balances at the end of every fiscal year to carry over to the next year for budgetary purposes. The unallocated money refers to the amount of actual revenue in excess of the budget estimate. By unexpended balances we have in mind the credit balances in the budget after all expenses have been paid and the necessary amount has been set aside to cover commitments, or further to increase the reserve. Few will deny the wisdom of having a large part of next year's



Thomas K. Hartenstine of Elverson, with a nice one killed in the Tuscarora Mountains of Perry County.

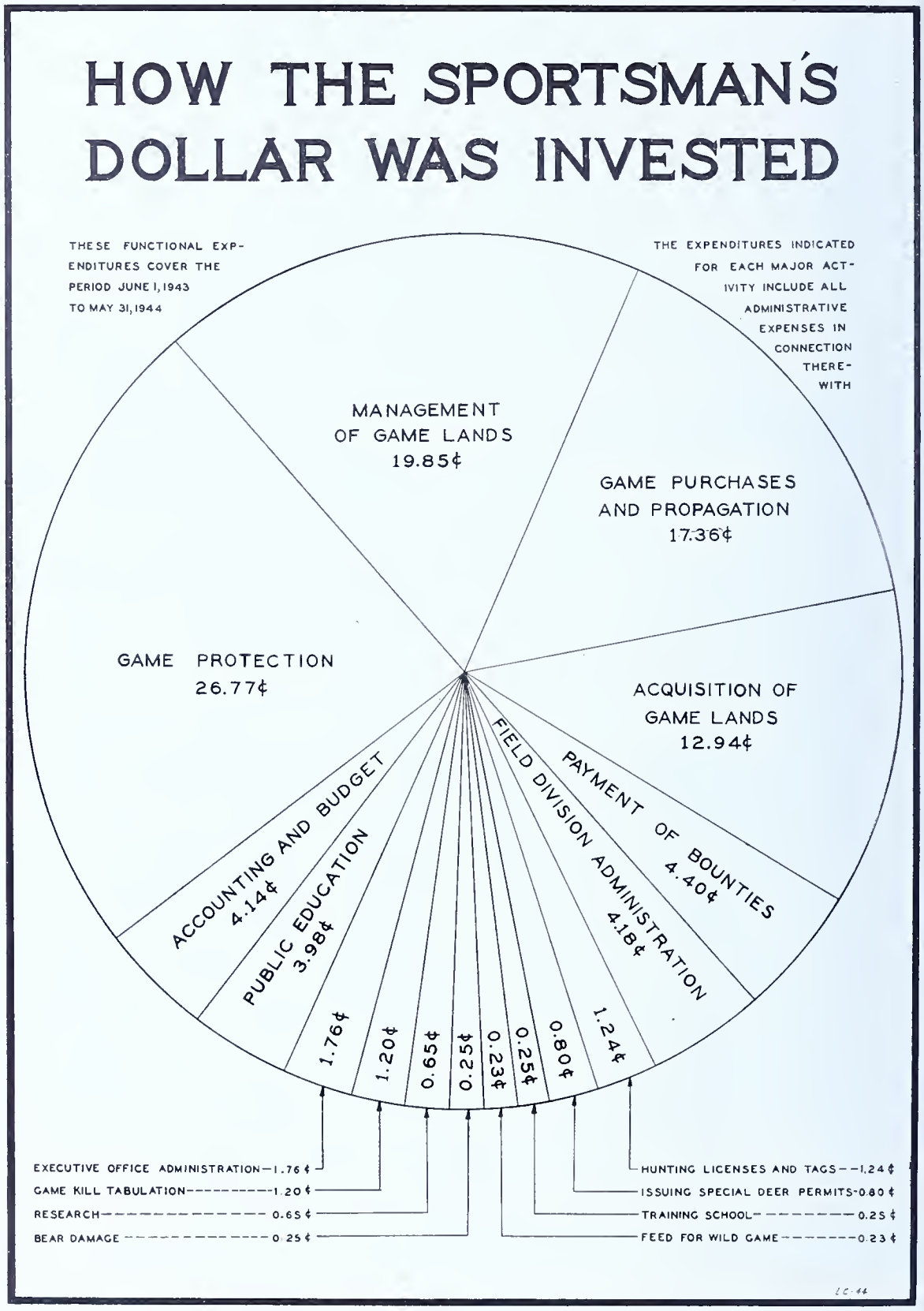


TABLE NO. 1

STATEMENT OF INCOME AND EXPENDITURES

December 1, 1919 to May 31, 1944

(24½ Years)

Income	$27,966,025.40	
Total Expenditures	25,870,473.53	
MAJOR FUNCTIONS:		
Protection Expenditures	7,964,168.82	(30.7%)
	68,571.62*	
Land Purchase Expenditures	3,620,470.00	(14.3%)
Land Management Expenditures	4,295,030.68	(16.6%)
Game Farm Expenditures	1,990,115.65	(7.7%)
Game Purchase Expenditures	2,134,663.78	(8.3%)
Bounty Expenditures	2,639,504.28	(10.2%)
	68,571.62*	
Total for Six Major Functions	$22,643,953.21	(87.8%)
All Other Expenditures	3,157,948.70	(12.2%)
Grand Total for All Purposes	$25,870,473.53	(100%)

*Land bought and subsequently sold to Department of Forests and Waters.

TABLE NO. 2

SUMMARIZED FUNCTIONAL EXPENDITURES

The expenditures of the Commission during the fiscal year ending May 31, 1944 have been subdivided into major activity groupings as follows:

		Part of Dollar
Game Protection (Salaries and Expenses incident to Law Enforcement, Game Feeding, Game Distribution, Assisting in enforcement of Fish and Forest Laws, and other field activities, but excluding cost for Training School and feed for Game) ..	$316,929.20	26.77¢
Management of Game Lands (Salaries and Expenses of Land Management Game Protectors and other employes incident to maintenance and development work on 1,038,287 acres of purchased and leased Game Lands and 1,192 Game Refuges, and fixed charges in lieu of taxes)	234,972.70	19.85¢
Game Purchases and Propagation (Including expenditures for equipment and operating four State Game Farms, and wild game transfer)	205,472.26	17.36¢
Acquisition of Game Lands (Including title and survey work, mostly capital investment)	153,121.31	12.94¢
Payment of Bounties	52,070.59	4.40¢
Field Division Administration (Salaries and Expenses incident to maintaining seven Division offices)	49,411.76	4.18¢
Accounting and Budget (Including Legal Advertising, Mailing and Storerooms, issuance of Special Permits, General Printing, etc.)	48,941.56	4.14¢
Public Education (Including GAME NEWS, Motion Pictures, Exhibits, General Bulletins, etc.)	47,094.77	3.98¢
Executive Office Administration (Executive Office salaries and expenses, and expenses of Commissioners)	20,888.68	1.76¢
Hunting Licenses and Tags	14,643.56	1.24¢
Game-Kill Tabulation (Including expenses incident thereto)	14,121.08	1.20¢
Issuing Special Deer Permits (Exclusive of Services rendered and Expenses incurred by Salaried Employes, estimated at $5,000 additional)	9,475.68	.80¢
Research (Salaries and expenses incident to various Projects dealing with studies of game birds, game animals, furbearers and predators for the Commission's guidance in developing management programs)	7,673.90	.65¢
Bear Damage	2,955.65	.25¢
Training School (Training of Officers)	2,938.97	.25¢
Feed for Wild Game	2,771.46	.23¢
TOTALS	$1,183,483.13	$1.00

TABLE NO. 3

ANALYSIS OF GAME FUND BALANCE AT PERIODS INDICATED BELOW:

	May 31, 1943		May 31, 1944	
Balance in State Treasury to Credit of "Game Fund"	$1,801,325.91		$2,109,497.33	
Add: Advancement Account for Payment of Bounties	353.50		40,000.00	
	$1,801,679.41		$2,149,497.33	
Less: Expenses Chargeable to this period but paid by State Treasury after May 31	25,765.26		53,945.46	
Funds Available		$1,775,914.15		$2,095,551.87
Less: Amount Reserved from Previous and Current Budget Allocations to Cover Commitments for Land Purchases, and Other Items Chargeable to Current Fiscal Year	$ 169,753.10		$ 207,137.99	
Less: Amount Allocated and Committed for Budgetary Purposes for Ensuing Fiscal Year	458,400.00	628,153.10	392,735.48	599,873.47
		$1,147,761.05		$1,495,678.40
Less: *Wartime Reserve*				
General Operating Fund	$ 461,750.00		$ 773,425.00	
Purchase and Maintenance of Game Lands	342,000.00	803,750.00	377,575.00	1,151,000.00
Net Operating Balance Available		$ 344,011.05		$ 344,678.40†

†Approximate amount required for Operating Expenses each year after May 31, until revenue from sale of licenses becomes available in the Fall.

budget covered by cash in the bank with a conservative revenue budget estimate to cover the balance of it, as against a budget based entirely on a liberal prospective revenue estimate without any cash balance from the previous year. The first plan of operation makes the life of a Comptroller a bit more pleasant.

4. *Wartime Reserve, $1,151,000.00*—Three years ago the Commission felt that a "Special Reserve" should be created for use during the war to compensate for anticipated loss of revenue due to decreased license sales. Fortunately the sharp anticipated decrease in the license sale has not as yet occurred. To say that this will not happen before the end of the war might be assuming too much of an optimistic view. Since the license sale did not materially decrease, it has not been necessary to use any part of the reserve. The reverse has been achieved, namely, that it has been possible to increase the reserve started in June 1941 in the amount of $107,200.00 to $1,151,000.00. Of this amount $377,575.00 is standing to the credit of the earmarked fund (75c from each $2.00 Resident License fee) for the purchase and maintenance of State Game Lands. With this financial backlog to fall back on it is hard to picture any exigencies which could not be met satisfactorily, and still have ample funds to catch up on the many major projects which necessarily had to be delayed due to priorities, shortage of labor, etc., and also to take advantage of Federal or State sponsored work projects, if any.

5. *Regular Operating Reserve, $344,678.40*—After deducting the amounts referred to under items 2, 3 and 4 from the May 31,



George P. Mertz, Jr., Northumberland, with bear shot in Lycoming County season of 1942. Game Protector Bruce P. Yeaker says of this one-armed nimrod—"George was a great hunter and thought his hunting days were over after he had the misfortune to lose his left arm in a railroad accident. But being a plucky young fellow he decided not to let it interfere with what he loved most. He also killed an 8-point buck in Potter County the same year."

1944 balance of $2,095,551.87, the amount has been reduced to $344,678.40, the "Regular Operating Reserve," which has been carried for many years. It provides a perpetual fund to pay normal operating expenses each year from June 1 to September 30. During this period of the year very little revenue is credited to the "Game Fund."

Value of Game Taken

While the efficiency of conservation programs is no longer measured by the pounds of game in the bag at the end of the day's hunt, during these days it is an accepted fact that the huge game crop has a tremendous food value and obviously saves ration points. In view of the fact that a small percentage of negligent hunters were still filing their 1943 Game-Kill Reports (in response to special reminder notices mailed by the Commission) at the time this article went to press, it is regretted that the total estimated value of the 1943 game kill and the fur resources cannot be made a part of this report. However, it is believed that when all the reports have been tabulated the results, as heretofore, will be most gratifying. During the 1942-43 fiscal year the estimated value of the game and raw furs was $6,930,008.44. The expenditures during the same year amounted to $1,244,429.07.

Other Direct Values

Few will refute the statement that the conservation program is not a selfish enterprise. It is conservatively estimated that a total of more than $30,000,000 annually is poured into the coffers of Pennsylvania businesses of one kind or another by the hunters in pursuit of their sport. The recreational angle and the splendid training which this sport gives our boys, both of which are beneficial during peace and time of war, cannot be estimated in dollars and cents.

Capital Investments

The annual published expenditures from time to time include capital investments, such as lands, buildings, equipment, etc. The actual consideration and the estimated value of these capital items, excluding obsolete equipment disposed of, appears below:

State Game Lands	$3,620,500.80 (a)
Buildings on Game Lands	155,184.00 (b)
State Game Farms (including lands, buildings, farm and propagating equipment)	290,147.72 (b)
Training School (including buildings and equipment)	30,755.38 (b)
Current Equipment (including automobiles, trucks, tractors, graders, etc.)	82,143.38 (b)
Total	$4,178,731.28

(a) Consideration paid for lands (including title and survey costs).
(b) Estimated value as of May 31, 1944.

Just as manufacturers and farmers must make provision in their budgets for maintaining their buildings, lands, etc., to safeguard capital investments and to secure maximum production or yields, so must the Game Commission budget a certain amount each year for the same purpose.

Use of Tables

In this article, as in those previously published, we have made the information available in several varying forms. This should meet the needs of the sportsmen desiring only condensed information and by the same token satisfy those who desire more detailed information.

Audit of Financial Affairs

Under the provisions of the Administrative Code the Department of Auditor General is charged with the responsibility of auditing all State Departments. Boards and Commissions. The Commission's accounts have been audited to May 31, 1943, and appropriate reports filed.

Continuing our customary practice, thereby making reference to previously published reports unnecessary, we are giving below the licenses issued (by years) from the enactment of the Resident License Law in 1913:

Year	*Resident*	*Non-Resident*
1913	305,028	No Record
1914	298,972	462
1915	262,355	532
1916	290,422	662
1917	315,474	588
1918	311,290	478
1919	401,130	1,128
1920	432,240	1,725
1921	462,371	1,761
1922	473,735	2,126
1923	497,216	2,328
1924	501,572	2,558
1925	521,855	3,190
1926	520,574	3,468
1927	501,622	4,879
1928	437,727	1,190
1929	505,103	4,823
1930	530,392	6,009
1931	572,779	8,964
1932	537,451	5,251
1933	524,337	4,966
1934	568,666	6,024
1935	606,469	8,460
1936	534,573	7,124
1937	598,261	8,357
1938	654,146	7,584
1939	653,852	9,047
1940	666,420	12,748
1941	675,434	10,922
1942	640,821	8,394
1943*	570,418	11,827

*Preliminary report, subject to slight change.





Above are two beauties—the one on the left was killed in Bradford County season of 1942 by the son of Lawrence Brown of Ulster. It has a 25¼ in. spread and 16 points. One horn was 5½ in. at the base; the one on the right was killed in Sullivan County by James Cotner, Milton, also in 1942. It had a 20½ in. spread, 13 points and was 5 in. at the base. It was the first deer Mr. Cotner killed in 12 years of hunting. Both animals were mounted by F. W. Bauder, South Williamsport, to whom we are indebted for the excellent photographs.

TABLE NO. 4
STATEMENT OF REVENUE AND EXPENDITURES—PENNSYLVANIA GAME COMMISSION
FISCAL YEAR JUNE 1, 1943 TO MAY 31, 1944

REVENUE

Balance in State Treasury to credit of "Game Fund" June 1, 1943	$1,801,325.91	
Add: Advancement for the payment of bounties	353.50	
	$1,801,679.41	
Less: Unwarranted requisitions chargeable to year ended May 31, 1943	25,765.26	
Funds available June 1, 1943		$1,775,914.15
Receipts during period:		
Net Revenue from Hunters' Licenses	$1,262,134.14	
Game Law Fines	68,524.50	
Special Deer Permits	49,238.00	
Special Game Permits	12,622.00	
Interest on Deposits	10,760.19	
Forest Products from Game Lands	16,379.77	
Skins Sold	6,119.31	
Unserviceable Property	3,825.55	
Rentals	1,748.37	
Publications	12,329.00	
Contributions from Federal Government	55,230.63	
Miscellaneous Revenue	4,209.39	
Receipts credited to Game Fund during year		1,503,120.85
Total credits during year, plus balance at June 1, 1943		$3,279,035.00

EXPENDITURES

	Executive Office and Division of Accounting and Budget		Propagation Purchase and Distribution of Game	Game Research	Law Enforcement	Refuges and Lands		Public Information	Field Division Administration	Total
	General	Bounties				Acquisition	Management			
Salaries	$43,479.20	$6,562.36	$23,562.35	$1,713.00	$179,464.36	$10,146.64	$92,034.12	$14,252.09	$30,501.23	$401,715.35
Traveling Expenses of Salaried Employes	1,778.93	83.17	1,861.17	1,113.63	79,790.63	504.34	19,091.15	1,250.61	7,644.81	113,118.44
Deputy Game Protectors:										
Wages $18,894.50										
Expenses 11,539.92	.....	.....	.....	.....	30,434.42	.....	.....	.....	.....	30,434.42
Wages										
Labor Cutting Fire, Refuge and Boundary Lines, Road Repairs, etc.	.....	.....	.....	.....	.....	.....	35,582.63	.....	.....	35,582.63
Labor at Game Farms, etc.	6,304.16	433.49	46,379.73	3,664.46	8,299.03	1,851.99	.....	679.18	2,596.79	70,208.83
Cooperative Farm-Game Program	.....	.....	.....	.....	.....	1,810.19	10,559.67	.....	.....	12,369.86
Purchase of Game	.....	.....	46,863.67	.....	.....	.....	.....	.....	.....	46,863.67
Rabbit Trapping and Wild Game Transfer	.....	.....	28,138.80	.....	.....	.....	.....	.....	.....	28,138.80
Feed for Game	.....	.....	27,766.30	32.64	2,771.46	.....	80.31	.....	.....	30,650.71
Express and Cartage	18.02	28.62	6,953.83	98.24	149.18	2.05	365.07	68.42	171.59	7,855.02
Purchase of State Game Lands (title and survey included)	.....	.....	.....	.....	.....	133,771.79	.....	.....	.....	133,771.79
Fixed Charges in Lieu of Taxes	.....	.....	115.70	.....	.....	.....	36,508.60	.....	.....	36,624.30
Building and Construction	.....	.....	206.25	.....	.....	.....	150.00	.....	.....	356.25
Repairs to Buildings, Grounds and Equipment by contract	97.18	11.50	44.19	33.55	16.00	22.70	196.04	166.68	65.84	653.68
Training of Officers	.....	.....	.....	.....	1,959.31	.....	979.66	.....	.....	2,938.97
Equipment	140.12	.....	356.66	16.50	38.11	9.50	544.61	230.85	180.72	1,517.07
Miscellaneous Supplies	1,321.02	945.01	13,158.15	409.31	1,024.33	208.86	9,958.14	492.45	368.15	27,885.42†
Motor Supplies	428.44	.....	1,997.43	.....	498.98	221.71	9,934.40	214.39	173.49	13,468.84
Light, Power and Fuel	.....	.....	3,461.81	299.38	.....	.....	158.68	.....	255.82	4,175.69
Insurance	724.73	68.69	839.02	68.05	2,452.34	157.82	2,311.05	168.75	335.11	7,125.56
Postage, Telephone and Telegraph	5,365.02	1,058.64	709.50	139.43	6,867.40	139.31	3,122.56	2,886.52	2,685.37	22,973.75
Rentals—Monthly Auto Storage, etc.	114.78	.....	1,931.05	13.00	141.70	2,750.50	8,937.14	26.95	3,092.34	17,007.46
Bounty Payments and Grants	.....	42,490.50	.....	.....	.....	.....	.....	.....	.....	42,490.50
Refunds of Receipts	135.00	.....	.....	.....	648.56	.....	.....	.....	.....	783.56
Game-Kill Tabulation and Expenses incident to checking Lists	14,121.08	.....	.....	.....	.....	.....	.....	.....	.....	14,121.08
*Issuing Special Deer Permits	9,475.68	.....	.....	.....	.....	.....	.....	.....	.....	9,475.68
Fees:										
Attorneys, Medical, Taxidermy, etc.	15.00	.....	13.00	.....	172.67	240.25	5.00	1,559.00	1.10	2,006.02
Damage by Bears	2,955.65	.....	.....	.....	.....	.....	.....	.....	.....	2,955.65
Other Maintenance Services and Expenses	533.44	123.25	101.39	10.53	138.09	37.69	100.19	101.00	224.11	1,369.69
Newspaper Advertising	6,187.75	.....	.....	.....	10.30	8.10	1,883.99	.....	.....	8,090.14
Printing, Binding and Paper	1,606.17	26.16	152.02	.....	261.63	223.61	104.52	24,479.53	7.10	26,860.74
Printing Hunters' Licenses, Tags and Misc. Forms (through Dept. of Revenue)	14,643.56	.....	.....	.....	.....	.....	.....	.....	.....	14,643.56
Administering State Employes' Retirement System (through Dept. of State)	1,581.28	239.20	860.24	62.18	6,521.47	1,014.26	3,344.83	518.35	1,108.19	15,250.00
TOTALS	$111,026.21	$52,070.59	$205,472.26	$7,673.90	$321,659.97	$153,121.31	$235,952.36	$47,094.77	$49,411.76	$1,183,483.13
Funds Available May 31, 1944										$2,095,551.87**

* Exclusive of Services Rendered and Expenses Incurred by Salaried Employes estimated at $5,000.00 additional.

** FROM THIS AMOUNT MUST BE DEDUCTED $1,750,873.47 FOR THE PURPOSES INDICATED BELOW:

Amount reserved from previous and current budget allocation to cover commitments mostly for land purchases		$207,137.99
Amount allocated for budgetary purposes for the year beginning June 1, 1944		392,735.48
Wartime Reserve (Refer to Page 23 This Article for Details)		
General Operating Fund	$773,425.00	
Purchase and Maintenance of Game Lands	377,575.00	1,151,000.00
Total deductions		$1,750,873.47
This leaves a net operating balance, (which amount is required for operating expenses each year after May 31 until revenue from sale of licenses becomes available in the Fall) amounting to		$ 344,678.40

† Explanation of Miscellaneous Supplies $ 27,885.42

$13,158.15 Division of Propagation—for equipment and supplies, used in connection with the propagation, purchase and distribution of game; and maintenance and repairs to buildings on the State Game Farms.

$9,958.14 Division of Land Management—for Game Land and Refuge signs; seed, lime and fertilizer; and materials and tools for maintenance of Game Lands and Game Land headquarters.

$4,769.13 for miscellaneous office supplies; films for educational purposes; ammunition for controlling predators; and maintenance and repairs to the Research Station at the Loyalsock State Game Farm.

Poverty or Conservation

(Continued from page 5)



Photo U. S. Fish and Wildlife Service

Conservation is not just a sentimental hobby nor a fanciful hope of idle dreamers.

could have no food, no fire, no crops, no life, nothing. When we inherited this continent we fell heir to a *hundred-million* years of cumulative transformation of raw volcanic rock to rich loam, grassy plains, primeval forests, a myriad population of fur-bearing animals and waters teeming with fish and aquatic life—all the product of the chlorophyl factory. Don't forget that when this rich endowment is gone its only replenishment must come through that same *small bottleneck* of *chlorophyl plus sunshine.*

Can any thoughtful person say that with 80% of our forests already cut down, 75% of our grasslands grazed to a stubble and millions of acres of underbrush cleared from our hillsides that we have not constricted the bottle-neck instead of enlarging it?

Those who cite surpluses of grain and cotton to contradict the threat of shortages are only looking through the keyhole at a nation-wide, yes world-wide, problem. Those surpluses were produced at heavy cost to the richest remaining topsoil areas in America. Robbing the rich soils to produce larger and larger annual harvests may be the most costly type of farming practiced. It was exactly that type of farming which started millions of acres of American farm land down the road to the desert.

The Human Angle

The threatened aproach of shortages in natural resources is not announced by headlines in the daily press. Any editor of a local paper would be hung from the nearest apple tree who dared warn prospective citizens to stay away because the home town and its environs was on its last legs due to exhausted resources. Such embarassing information is carefully concealed from the world by local Chambers of Commerce, Real Estate Dealers' Associations and Retail Merchants. Can you imagine railroads advising summer tourists not to buy tickets to the Minnesota lake districts because nine-tenths of their lakes have lost their once prolific fish and game populations? No land boomer was ever known to tell a prospective purchaser that the three former owners went broke trying to make a living on the ranch he was trying to sell to the fourth. Nor would an Arizona silver mine broker reveal that the precious metals had all been taken out of the mine by its previous operator, any more than a second-hand auto dealer would tell a customer that the bearings were burned out, the battery dead and the transmission gears stripped on a car he was offering for sale. Florida does not advertise that it costs more for the fertilizer to raise oranges in that state than you can get for the ripened fruit and Iowa is careful not to let anyone know that the southern third of its farm land has been so badly eroded that whole counties have gone on relief and that their schools, churches and local governments are bankrupt. The U. S. Reclamation Service does not publicize the number of irrigation projects which have cost the taxpayers millions and then wrecked the family fortunes of the settlers who tried to farm the irrigated lands. The National Forest Service does its best to arouse the public to the dangers of forest fires but it does not emphasize the fact that forest fires are taking toll of our American forests faster than Nature, with the assistance of the U. S. Forest Service and all the state forest departments, can grow them. And so on and so forth ad infinitum. Thus it happens that the people of this country have remained in ignorance of the progress and depth of depletion which has pulled from under them the sustaining foundation of their prosperity.

As a nation we did not concern ourselves over what was to become of the army of lumberjacks, sawmill operators, the local storekeepers, school teachers and village inhabitants when the great primeval forests of Michigan, Wisconsin and Minnesota were all finally harvested and cut into lumber. Even less conscious were we of the fate of the thousands of families of the once prosperous fishing villages on the southern shores of Lake Erie when suddenly the prolific runs of fresh water herring gave out and fishermen, boatmakers, net-weavers and associated industries were left without any means of livelihood. Ghost towns that were once thriving fishing villages line the coastal waters of the Atlantic, the Pacific, the Great Lakes and our major rivers—each one a tombstone to dead resources.

Social and Economic Factors

"Abandoned farm" is a familiar term which has fallen upon our ears and slid off with no more effect than a drop of water on a duck's back, but a single abandoned farm is sodden with tragedy and suffering for the members of the little family who could not make a living on it and had to abandon all hope there. Multiply that tragedy by a million abandoned farms (there are many more than a million abandoned farms in this country already) and that term "abandoned farm" assumes a foreboding significance which we as a nation have ignored.

Need we mention more examples in order to be convincing? It could be done until every nook and cranny of our continent had been shown to be the victim of similar circumstances. Each in its turn inflicted no stunning blow to our national economy but the cumulative effect of all of them together has built up a total of profound significance. The early symptoms are as insidious in their approach as a creeping paralysis whose earlier effects are only inconvenient but which finally paralyze the whole body. By the same token, the day when everyone in the United States will go comprehensively hungry is a long way off but the widening margin of our population who do go underfed because of disappearing forests, land and water is gaining new recruits by the hundreds of thousands annually. The climax of exhausted resources will be violent and without mercy. Once that climax is reached the restoration is as slow as the ages of Nature.

We know now that much of the rapid exhaustion which has taken place in America was entirely unnecessary, due largely to ignorance and wasteful practices which could have been avoided without loss to current profits. If we begin now the intelligent application of those same principles which might have prevented the past waste we can at least insure continuity of use of what we have left. We possibly can accomplish a restoration of some of that which has been lost. It is the application of such principles and practices which, grouped together, is called "Conservation."

Conservation is an organized campaign to eliminate the *"bottle-neck"* in the economic mechanism for national welfare and if it can't eliminate the bottle-neck at least it can keep it from growing smaller and choking us to death.

The Laws of Nature

Conservation is not just a sentimental hobby nor a fanciful hope of idle dreamers, of duck hunters, of fishermen or bird lovers. Conservation is a science whose principles are written in the oldest legal code in the world—The Laws of Nature. It has taken the scientists longer to discover and interpret

those laws than it has taken the archaeologists to unearth the story of the Egyptian Pyramids and King Tut. In spite of their greater significance to man, King Tut gets all the publicity and more people know about King Tut and his unearthed treasure than know why the region where he lived is now desert. The latter item of information is, however, much the more important of the two.

Ignorance of the laws of Nature has been, and still is, more responsible for the infractions than willful malpractice. It is therefore necessary before any real progress towards conservation can take place that the educational fraternity shoulder a large part of the responsible burden. It is obviously hopeless to divert our mass population from their ingrown destructive habits when they are not aware of either the natural laws or the dire consequences of their violation.

A Challenge to Education

How the educational institutions shall accomplish this task is for professional educators to determine. Suffice it here to say that the job must be done and done soon. It is the job of scientists to interpret and correlate the natural laws in such form that the educators may make them clear to the oncoming generations. In a large measure the natural scientists are far ahead of the educators with their work. For instance, scientific research has determined by experiment and proved by demonstration that plants have vital influence on moisture in the soil, one of the most important relationships in human welfare. But Botany teachers still occupy the minds of their pupils with identification of species and grade the students accordingly, while geologists, although water is the most precious element within their sphere, ignore it altogether and drill their classes on the relative hardness of horn-blends and talc, and how to distinguish fluorite from feldspar by the number of facets to their crystals. Biologists, whose province is the teaching of the interrelationship of all living things, have wandered off into that rarefied atmosphere which surrounds the eternal mystery of when and how life enters protoplasm. Yet within the natural laws of these common school studies lie the secrets of *droughts, floods* and *dust bowls, eroded topsoil, deserts* and DESTITUTION.

Why are so many of our fresh water springs, once perpetually flowing, now dry?

Why do rivers which within our memory once flowed bank full the year round now dwindle to nothing in mid-summer?

What man-created influences have caused a continuous and rapid falling of the subsoil water table of our continent?

What happened to Nature's balance in the great stretches of western grasslands which has made them barren deserts and the ranch houses vacant?

How long will it take to replace the nine inches of rich topsoil which have washed off the farms of the Mississippi Valley? How?

What essential function to life do green leaves perform without which no human being could exist?

What is the source of all sugar, starch, fat, coal and oils and is there any substitute method of production which men can provide?

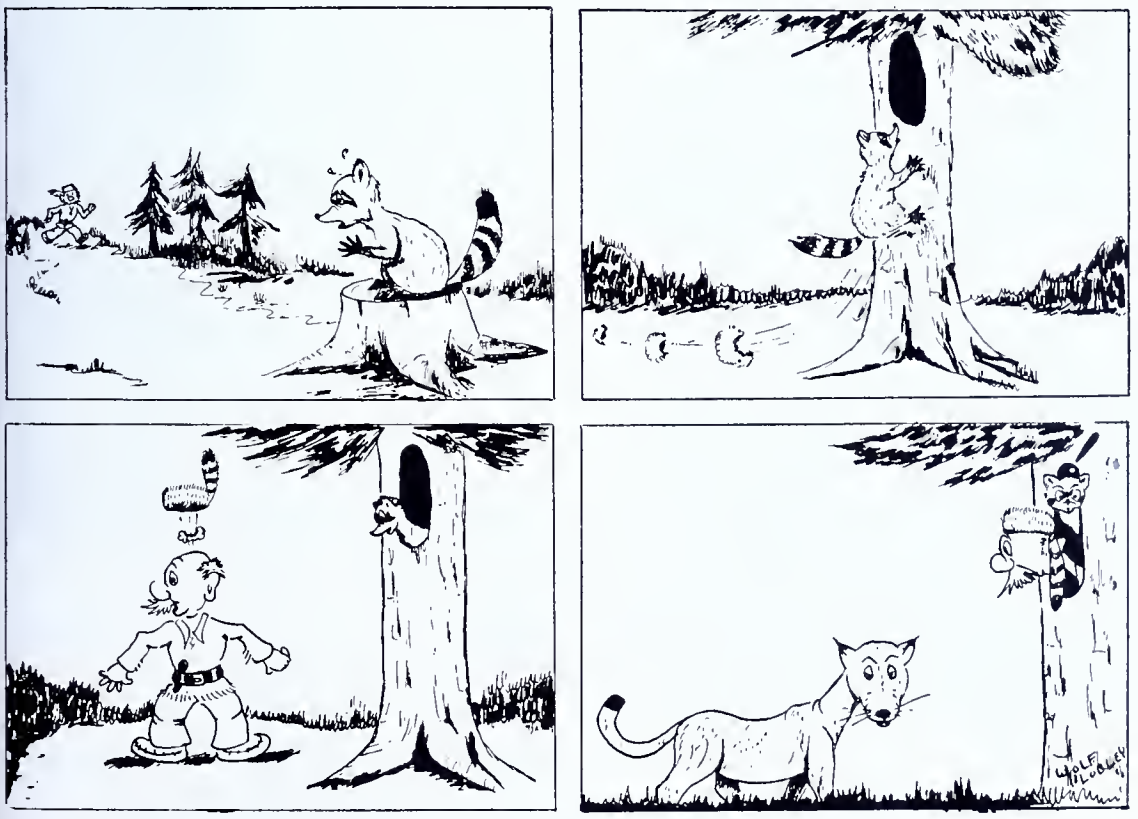
Why are there no more salmon in the Atlantic Coast rivers of the United States of America?

Why do lakes which once had crystal waters and an abundance of aquatic economic resources now grow green scum and no fish?

What has become of the millions of people who once lived on the now denuded forests, abandoned farm land and exhausted fishing waters?

The answers to all these and many more questions like them are now written so that anyone who cares to may read in the simple language of the natural research scientists. And the fate of our future generations rests upon their application to everyday living.

Research scientists have gone a long way to provide the formulas by which Conservation can be accomplished. The public, hydraulic and sanitary engineers, industrialists and, alas, educators, have been slow to apply or even think of these vital essentials to man's existence while our population grows larger and our productive resources shrink.



Selfish Interests Responsible

Local Chambers of Commerce and Congressmen still rush the doors of the Treasury for millions to build dams which will produce $25,000 worth of electricity a year but destroy nine million dollars' worth of natural income and throw thousands out of employment. It has been done recently.

A slaughter-house or a paper mill may employ 100 men and increase the local bank clearings to the gratification of the city fathers but at the same time destroy the livelihood of 500 families downstream through pollution of the once productive waters.

"Reclamation projects" may (and have done so time without number) spend tremendous sums for irrigation and find that they have robbed Peter of a fortune to pay Paul a pittance.

Such hastily promoted projects, instigated for quick profit and exploitation, are seldom preceded by even a gesture of scientific investigation to determine in advance what the consequences may be to the people of the country as a whole. Because the simple principles of Nature's laws are not a part of the average man's learning, there is no one to protest. What is even more lamentable, the average understanding is so low that they do not even know they are being hurt until the sledge hammer falls. Congressmen, army engineers, most Governors, state legislators and all known Mayors and County Supervisors are as oblivious to the import of Conservation principles as Adolf Hitler is to truth and human justice. That makes it almost unanimous, and yet the fundamentals are as easy to understand as the fact that long grass will gather and hold more snowflakes than short grass and hence provide more moisture in the soil for the next season's crops.

I could tell you of an experimental area of 35,000 acres of land which ten years ago had not a spear of grass visible, wherein seven flowing springs had gone permanently dry and life was practically extinct. That same 35,000 acres is now knee high with lush vegetation, the seven springholes are again full of water the year 'round and a thousand head of cattle could be fed without overgrazing. It didn't take any fertilizer. It didn't take any 25-million-dollar irrigation project to restore it to production. Only an application of the simplest principles of conservation management.

The obvious and simple practicability of Nature's methods turn out to be man's best aids. It did take scientists—and good ones—working diligently over a period of many years, to provide the proof that the principles of conservation would work, and why. It is too much to claim that the subject has been scientifically exhausted. It hasn't, but a great deal more is known than is being taught or applied, and the scientific research is a long way ahead of the procession.

Let us see if we can outline a few conclusions which will fix in mind the objectives of conservation and the processes which are essential to its accomplishment:

1. No nation can permanently endure which consumes its natural resources faster than

(Continued on page 31)

Wildlife Problems

(Continued from page 7)

men so that they may understand the relationship of the mammals which are *not* game to those which are. Out of the material that we would gather, a textbook could be prepared and a course in conservation established in the public schools as part of the regular curriculum. This is a very desirable objective and one to which we should all direct our energy. Such a study would require five years to complete, and it should be started just as soon as the necessary manpower is available. I think that the funds can be obtained for this project, as the museums of the state have indicated their willingness to cooperate and to contribute money to assist in the program.

Now let us direct our attention to the Land Management Program, which is becoming more and more important with each passing year. In the early days of game administration, the accent was largely on restrictions: shorter bag limits, shorter seasons, more restrictive laws. Enforcement of these laws was considered good game management. Then came the stocking era, with the emphasis laid upon stocking game. Later came what is termed the management era. Each of these activities as initiated served its purpose. But there is still much to be done. A great deal has been accomplished, but the surface has only been scratched, and I should like to lay before you in detail some of the things we need to start on now as part of our program for the future. It is not my intention to break down these suggestions by divisions, for that would make it too complicated. I am merely going to itemize the various points so that you may appreciate the magnitude of the task ahead of us.

First, we need to re-establish and fireproof our boundary lines—3,250 miles. Second, we must fireproof our refuge lines—615 miles. Fire trails must be established for protection against forest fires—935 miles. The roads on our game lands must be improved. 470 miles of new roads are needed and 565 miles should be reconstructed. This means cutting a right-of-way and removing timber for 405 miles. Cross drains and culverts will have to be built; this will require 62,885 linear feet of metal pipe and 9,795 cubic yards of stone masonry trenching. We must remove 101,075 cubic yards of dirt and stone, and make fills of 94,690 cubic yards. In the low spots where we need the stone, there are 397,765 lineal feet to take care of. We must clear an area of 1,463 acres for planting; there are food plots to prepare, sow, cultivate, and harvest—1,725 acres; cutting and thinning operations—60,000 acres; release cuttings and prunings—60,000 acres.

These last two projects have no bearing on the timber sales which must be consummated as rapidly as possible. They are additional, and at least 5% of all forest land should be cut over for timber every year. We need to plant 3,630,000 seedlings and transplant 200,000. We want to construct 8.570 feeding shelters, and 10,960 rabbit retreats of stone and logs to provide shelter. We should build 249,100 feet of rail fence, 27,650 feet of stone fence, and 47,940 feet of wire fence. In our turkey areas we need 29,100 feet of additional fencing. We need 184 more corncribs and 109 storage buildings. There are 31 outmoded buildings which should be removed, and 6 which should be moved to other locations. About 70 corncribs, cabins and storage sheds must be repaired.

In order to bring our buildings up to standard, 168,300 square feet are in need of painting. There are 686 acres of fields which need to be drained and ditched, which will require 41,300 feet of drainage ditches, and 1,160 springs which should be cleaned, walled up and ditched. We need 576 road barricades. We have to fill in 534 mine shafts and cave-ins. We should cultivate and fertilize 50,000 chestnut seedlings. Twenty-one wells need to be cleaned out. We should quarry 3,500 tons of limestone, which should be hauled to a kiln and burned for lime to sweeten the land which has gone sour. There are 10,700 posts that are in need of replacement or painting, and 17,265 signboards which should be repaired and repainted, in addition to building new ones. We ought to have 452 additional parking areas, 362 more bridges, and 105,900 tons of gravel should be removed from the pits on our land for road purposes.

In our erosion control program there are 440 acres that require immediate attention; 7,925 feet of water line must be built. There are 8 acres of lawn which require grading and landscaping. We should build 10 miles of telephone lines. We want to build and erect 5,425 bird and squirrel boxes.

In the improvement program for lands under the control of the Game Commission, we need to improve 285 miles of streams and construct 370 small dams for impounding water for wild fowl, feeding and nesting areas, and for fishing purposes, which will be a boon to the fishermen as well as to the hunters.

There are some miscellaneous items which I have not enumerated, such as the repairs to the refuge keeper's headquarters; the cutting and setting of posts to mark boundary lines; and the removal of old barbed wire fencing where necessary.

All these projects comprise a tremendous program and will require from eight to ten years to complete. Since there will undoubtedly be federal aid funds available, the program will probably not cost the sportsmen of this state more than $100,000 a year. That is a sizable sum of money, but when we consider the results to be obtained over the period of time planned for, even twice the sum would not seem too expensive. However, we are not depending upon outside aid to insure the consummation of this program; our own funds will be used even if it requires more time for completion.



Photo by W. L. R. Drake

"What is the game supply in Pennsylvania to be twenty, thirty, fifty years from now?"

In some section of Louisiana the green-winged teal is referred to as the congo, or congotte (also misspelled cognotte). These nicknames are given it because of its small size, as the Congo slaves were the smallest brought to the New Orleans market.

With Those in the Service

(Continued from page 13)

"Received your letter about a week ago and this being Sunday afternoon and having some time off I thought I had better catch up a little on some of my writing.

"I am coming along pretty good considering the very hot weather and rain we have down here. Hardly a day passes without it raining.

"I am now looking forward to the end of my basic training here which is just four more weeks and then will get home, for a few days with my family, and am going to try and get over into Lycoming County to see some of the fellows there, for I sure did like the place and made a lot of friends while there. And I sure hope that after the war is over I can once more return to the same work.

"I am glad to hear that the Division C. office in Williamsport is now all set up and that they have a good location.

"I was very sorry to hear about Hugh Baker being sick. I hope that he soon gets better. I have written to him.

"So far I have not failed on any of the Ranges. Have qualified with the 30 Cal. Rifle, 45 Auto. Pistol and the heavy 30 Cal. Machine Gun. The one I really enjoyed the most was shooting the rifle for we had different types of ranges to shoot on. Some of them were known distance ranges and the others were bobbing targets where we had to judge the distance and adjust our sights and windage and fire all in sixty seconds. I was very lucky on this range for I hit all my targets with the first shots. Haven't been on that range since so don't know if I could do it again or not.

"Well as news here is kind of scarce right now, I will close for this time.—Pvt. Robert L. Sinsabaugh, A.S.N. 33935150, Co. F, 215th Bn., 66th Reg. I.T.B, Camp Blanding Florida.

"The trip here was very interesting and lots of sights to see.

"The fields are small and surrounded with high hedges. There are lots of cattle in this section, plenty of orchards and a good crop of apples. The buildings are built out of stone.

"Today I saw a native with some fish. I was driving and couldn't tell what kind they were. I see some song birds but they are new to me. Saw some ducks at a distance. As yet no game observed.

"Feeling fine and everything is going as good as can be expected."—Cpl. Louis D. Mostoller, 855th Ord. H. A. M. Co., APO 350 c/o Postmaster, New York, N. Y.

"I'm now assigned to the Base Photo Laboratory as a laboratory technician. It's very interesting and informative. We handle and make all photos for the base. I've found that there are many things that make a lab go. In the G. I. business you know everything or else. I've plenty to learn and this is the place to learn it. No mistakes here—everything perfect although we handle only still cameras which aggravates me to no end.

"Have a swell staff and real artists among them. Our non-com in charge is a Hollywood product with plenty on the ball. The officer in charge is a Lieutenant from New York—a fine chap and a good officer.

"At first the air activity bothered me for there are always 30 or 40 planes buzzing the field every minute of the day. Now I find that it disturbs me when they are grounded and all is quiet.

"This is a tough country and a rather tough field. Work seven days a week but permitted one day off a week if no details show up. Also permitted to take a three-day accumulation at one time but it doesn't mean much for the nearest towns are Spokane or Seattle, each about 200 miles one way.

"While Washington as a whole is a rather nice state, this portion is plumb in the center of a desert with nothing but sage brush and volcanic rock. We live in the cutest little chicken coops which are about 15′ x 15′, jacked up and placed on piles of 4″ x 4″. They have excellent under-ventilation and a fox could crawl through the cracks in floors and walls, if a fox could live here.

"Later on, when time permits, I shall send you some examples of some good G. I. photography. One advantage here, we have beautiful cloud formations for backgrounds which really adds plenty to aerial shots, etc., of aircraft. Have to be plenty on the ball though, for these boys buzz along at a good speed."—Pvt. D. L. Batcheler, Ephrata, Washington.

"I have been out in this part of the world long enough by now to fully appreciate the wonder and fortune of hunting in the United States and especially in my resident state, Pennsylvania. Of course I have a regular subscription to the GAME NEWS which supplies me with just the right amount of the right kind of information in one of my chief interests—outdoor life and wildlife conservation. Naturally a publication such as the GAME NEWS is extraordinarily diversionary, but as a morale builder it ranks number one not only for myself but for several of my shipmates. It is wholly appealing from cover to cover, every single issue. Words can't describe the feeling and emotion that comes over a fellow out here when he reads of the splendid work being done as cheerfully and efficiently in making one's favorite fields and woods an even better source of enjoyment, clean recreation and wholesome sport not only at present but when and after these yellow vermin here have been flushed and dropped. The outdoor life we enjoyed at home is alone worth going through the hell that war provides. Preservation of that enjoyment is priceless.

"Of the many different types of wildlife conservation, the use and management of game lands in Pennsylvania interests me most. The specialized stress on certain crops in certain areas on certain game is a huge program in itself and I find great pleasure and interest in watching the progress of this great program. How such a vast undertaking is handled with such expert efficiency and with such wonderful results is more than I can comprehend.

"I would be very much interested in a compiled history of wildlife conservation in Pennsylvania if such information is readily obtainable in form of pamphlets.

"Could this letter please be published in some future issue of the GAME NEWS? I wish to thank the Commission, and all the personnel who contribute so much effort in keeping Pennsylvania the same, cherished home of such wonderful sport and pleasure for us here and in all other parts of the world. Keep up the good work at home; we'll do the job out here." Martin Ifland, SoM 3/C, V. S. S. Cogswell, somewhere on the seas.



Photo by W. L. R. Drake

It won't be long now. Timberdoodle season is just around the corner.

Some Observations of the Black Bear

(Continued from page 8)

Just as bruin seems reluctant to go in until severe weather or deep snows, just so reluctant he seems about coming out in the spring, and it is rarely that one is seen in this latitude until late in April or early May. The idea that they come out lean and lanky is not borne out by facts. All the bears I have seen in May were as fat as in November.

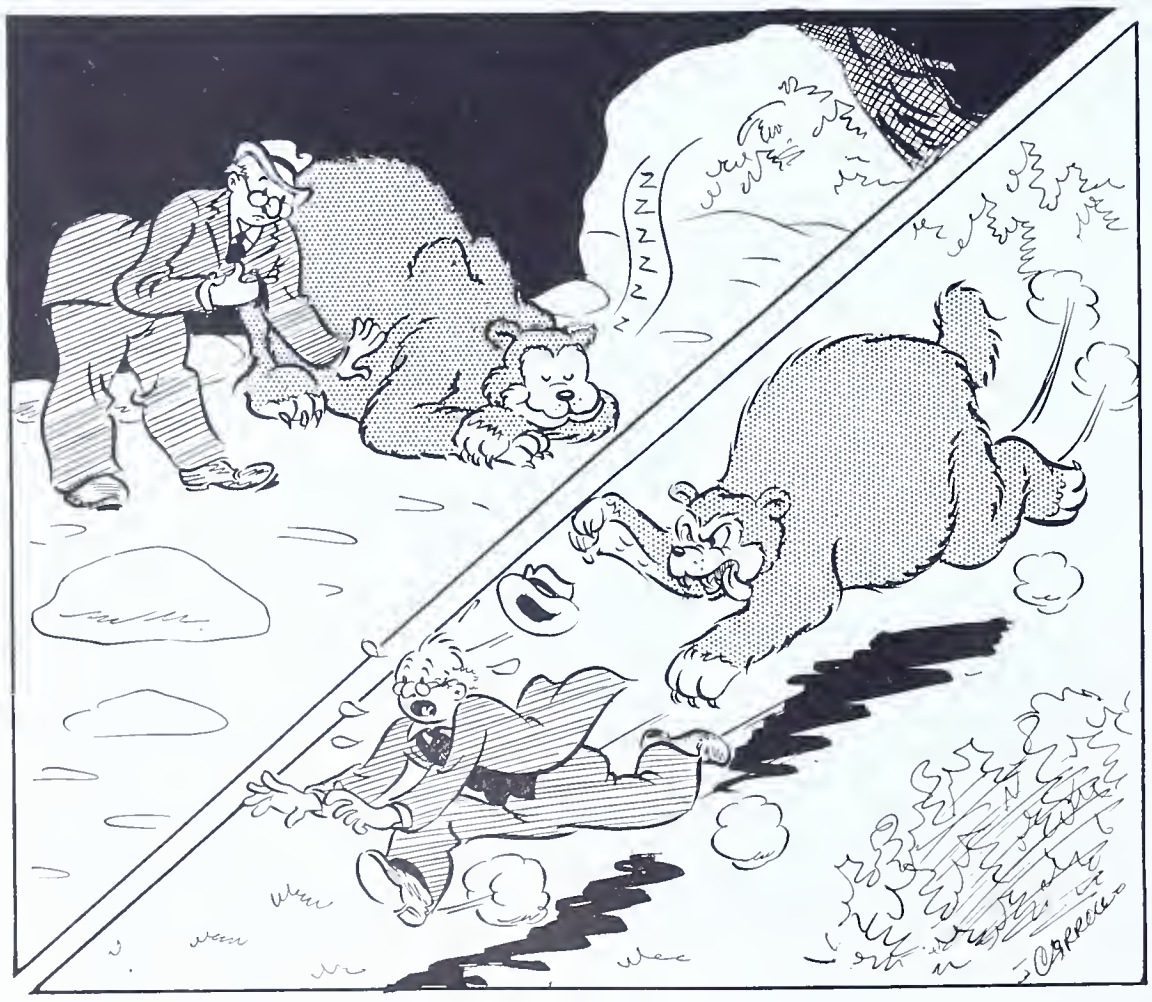
It is also a curious fact that except for for those few individuals that get into the beehives or sheep yards, I find no evidence that they are ravenously hungry. I believe they eat rather lightly during the spring and early summer and start their heavy feeding only when the fat-producing nuts and acorns are available in the fall.

During the hot summer months the bear sheds his coat and a good part of his fat, and with large patches of this faded winter coat still hanging on he looks more like a vagabond than the sleek glossy fellow he is during most of the year. At this time also he takes to the wallows, perhaps as much to rid himself of vermin as to escape the heat. He loves to immerse himself in the muddy water and the frequency of his visits to these wallows is indicated by the muddy paths radiating like the spokes of a wheel from his bath-tub.

Like most mammals he has a good deal of individuality and what one bear does in any given situation is no guarantee of what another will do. The smallest bear I ever killed was the only one that showed any inclination to attack me after being knocked down. Had he been able he certainly would have chewed me up. None of the others, even when mortally wounded, showed any desire to attack. Even one that weighed nearly four hundred pounds when knocked down, but not out at twelve feet from me, tried to get away. He had been coming straight at me and his last jump was eighteen feet. But he was not trying to get to me; he was trying to get away and did not see me until that last shot. From all these experiences I have come to believe that the black bear is not as dangerous as he is supposed to be.

A few years ago I had a chance to test this theory when I saw a bear feeding on beechnuts in the daytime. He had not seen me, so I knew the closer I got to him the more surprised he would be. I had a gun, but I also had the courage of my convictions, so I set the gun down against a tree and, taking full advantage of the wind and keeping a tree trunk between me and the bear's head, I began a careful stalk. I do not think an Indian could have done better for I got within arms length of him. There was very little cover any of the way and none at all for the last few yards; but only for a trick of fate I could have touched him. Just as I was reaching out to put my hand on his rump a quick little whirlwind spun the dry leaves around and apparently gave him my scent, for he looked up just in time to jump away when my hand was only inches from him. But I had proven that even under the shock of surprise that particular bear had no thought of attacking. He jumped sidewise just out of my reach and then ambled off as though he hated to lose face by hurrying. This was no cub but a bear of about three hundred pounds.

As before stated there was no way of knowing what this bear would do except to try it and he proved no exception. It has been said that the exception proves the rule and I believe it safe to say that as a rule even when wounded a bear will not attack. I believe wild animals have changed their habits and nature with the development of the firearm and what a bear would have done a hundred years ago under similar circumstances I would hesitate to guess.



One observation I made about that bear was that he was right-handed. He was brushing away the leaves to get at the beechnuts and with his right hand (or paw if you prefer) he was doing it as quietly and skilfully as any person could.

A bear seems to be conscious of his conspicuous black coat and keeps to the dense cover except when the urgency of putting on fat for the winter demands that he come out in the more open forests. At such times it is not difficult to see a bear if one can find where they are feeding. They are likely to be feeding by day as well as at night and I have seen as many as five of them lying down in quite open woods after having eaten all the beechnuts they wanted. They were quite reluctant to get up and move and it was not until I had shot at a grouse within thirty yards or so from them that they finally decided to leave, and even then they did not hurry. In fact one of them got up and stretched and looked me over quite unconcerned while the others were making up their minds whether to go or stay. This is probably not the way bears should act either but it shows how unpredictable they may be.

In one particular they seem to lose their individuality and it is, for them, a fatal weakness. When driven from their favorite haunts on one mountain they go straight down one side and up the other, and in the same place. The bear hunters who come to these northern countries in ever increasing numbers are under a terriffic handicap if they do not know these runways. Nothing is so hopeless as hunting bears if you do not know them and so thrilling if you do.

Bears have an interesting habit of marking some particular tree known as a bear tree or measuring tree the purpose of which is something of a conjecture. Some think the male bear reaches up to his extreme height and marks the tree with teeth or claws as a challenge to other bears. The few I have seen were always at fork or branch in the bear trail and so offer the interesting possibility that they are the bear's highway markers.

Another habit credited to bears is that of plugging bullet holes with hair or leaves. I saw one short piece of dead chestnut twig taken from a bear killed by a hunter. It was firmly imbedded in scar tissue and was probably used to plug a bullet hole, although it is possible it had accidentally penetrated the bear's tough hide and broken off. This does not seem very probable so I would call it good evidence that they do plug up their wounds.

I do not know all the sounds a bear can make. All I have ever heard is a lusty bawl similar to that of a calf and a sort of coughing growl accompanied by a snapping of the teeth. Undoubtedly they make other sounds but I have never heard them. If the old bear said "woof" it makes a better story but on that point my education has been neglected.

The Burning Question

(Continued from page 11)

eight were located in "Penn's Woods" in addition to nine soil erosion camps, we had organized fire fighting units, fully equipped with trucks and modern fire fighting equipment, located in all parts of the Commonwealth, and able to get to the points affected quickly. Under direction of the trained field force of the Department of Forests and Waters, and with the highly efficient cooperation of the Statewide force of Forest Fire Wardens and Game Protectors, fires had little chance to make much headway. The results in decreased destruction and markedly less acreage devastated were common knowledge.

Today we no longer have a single C.C.C. Camp left in Pennsylvania. The number of cooperating experienced and trained men has been greatly reduced through induction into the armed services and the demands of war industries. Such fire fighting as must be done now involves largely the use of boys of High School age and men of older age groups. At best fire fighting is a hard and dangerous undertaking, and to be effective demands knowledge born of experience and cool judgment. Youth groups can work in safety only under the most experienced leadership.

No, we do not want forest fires. Everybody does lose when timber burns. The owner loses, the hunter loses, the fisherman loses, everybody loses. "Prevent Forest Fires, It Pays"—Pays dividends to every out-of-doors enthusiast and nature lover, to all red-blooded Americans.

A match thrown from the open window of an auto passing over a woodland highway flares up on striking the ground. A fire springs up and the car has disappeared, the driver unaware of his part in another woodland tragedy.

A camper leaves his open air fire to catch a couple of trout before his pals arrive. He returns ten minutes later to find his equipment burned and the spreading fire racing in all directions and beyond control.

A hunter starts for home, forgetting to return and thoroughly extinguish the fire over which he had been warming his toes before he moved to investigate that crackling brush just a little ways ahead. He wonders if—if—but he does not return to check on his suspicion. The upward curling smoke to the rear tells him far more than he desires to know.

Carelessness and thoughtlessness are the cause of many a woodland tragedy. Today it is the personal responsibility of every conservation minded American to do all within his power to guarantee those fathers, brothers, sons, friends—all who fight for freedoms on the far-flung battle fields—that freedom they most love. May we be thoughtful enough to see to it that they, upon their return, shall not be disappointed in our great out-of-doors. May they find green clad hills, abundant wildlife, swiftly flowing and unpolluted streams, and with dog or rod or gun enjoy that freedom, the right to the pursuit of happiness.

Poverty or Conservation

(Continued from page 27)

Nature, with scientific aids, can replace them.

2. Conservation is the science of greatest possible production without diminishing the source materials.
3. Conservation seeks by the application of the natural laws to provide methods by which perpetual production may be substituted for destructive exploitation.
4. Conservation is the exponent and advocate of careful scientific study and diagnosis before major operations are performed on our basic economic mechanism.
5. It is essential that whenever Nature's productive balance is invaded that adequate replacements or equivalent substitutions be provided as insurance against diminishing returns.
6. It is a primary requisite of conservation that no project which makes use of natural resources is justified whose costs to the people of this nation are greater than the local profits.

All these seemingly axiomatic precepts are, as a matter of fact, just another way of saying that you can't feed and clothe more and more people on less and less productive resources. The repetition of this axiomatic fact is intentional. To the newcomers who approach these more serious aspects of conservation for the first time, the emphasis on food production to the neglect of mineral resources may cause some questioning which should be answered here.

Organic and Inorganic Resources

Resources by Nature are divided into two classifications: those which are renewable by human efforts and those which by Nature are not renewable. In a measure, all organic resources are renewable. Forests can be replaced by reforestation; grasses and surface vegetation if destroyed can be replanted. Furs of wild animals can be replaced by wool from domestic animals or textiles made from vegetable matter. Depleted animal life can be renewed by scientific breeding and restocking. Even soil depletion can be, in a measure, renewed under advantageous conditions by prescribed vegetation management.

On the other hand, the mines which produce our inorganic or mineral resources such as silver, aluminum, iron, tin, zinc and kindred elements cannot be restocked. They are therefore classed as non-renewable resources. There are, to be sure, dangers which threaten serious inconvenience if by mismanagement and waste our stocks of essential minerals run short, but these hazards concern industrial production rather than the essentials to sustain life.

I venture to say that no one would like to contemplate living in this modern world without the conveniences provided through industrial production. If that is bad, think how much worse it would be to live in a world from which the supply of food, fuel and clothing had been exhausted. Hence the emphasis on "renewable" resources, for if you do not "renew" your "renewable" resources you won't have any use for the "non-renewable" anyway. King Midas found that out when everything he touched turned to gold and he could not eat.

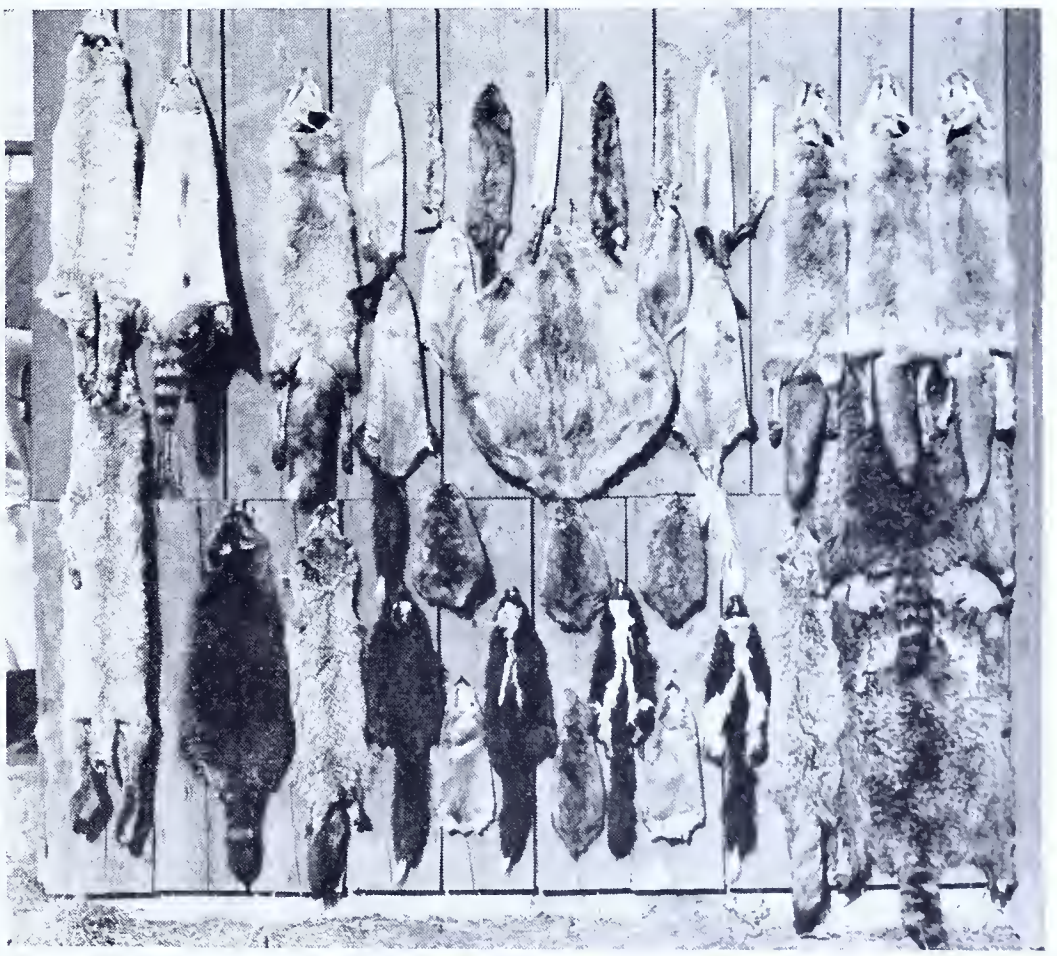


Photo by Delbert Batcheler

"When we inherited this continent we fell heir to a myriad population of fur-bearing animals."

In Commemoration

(Continued from page 1)

Dr. Kalbfus, who became Secretary to the new Commission and Chief Game Protector on July 8, 1898, for more than five years attended to the correspondence and other Commission duties at night without compensation, and worked all day at his regular vocation as a dentist. In his spare time he traveled over the State bearing his own expenses in the interest of game protection and wild bird conservation.

In the early days of the Commission, Game Protectors were extremely unpopular. The people resented being told when and what they were allowed to shoot. They could not see the benefit of wildlife conservation.

But Dr. Kalbfus and his colleagues were persistent. And due to this tenacity, birdskin hats became less popular for ladies, and a gentleman was not considered so "smart" if he shot game out of season. The value of conservation began to be recognized. The sportsmen began to understand that if they were to continue to hunt at all, game must be protected. And although the Commission still had plenty of trouble with law-breakers and defiant so-called sportsmen, the first hurdle was passed.

For some years after the founding of the Commission, the Legislature refused to appropriate any sizable sums of money for the protection of mammals and birds, declaring that they were interested, but there were the hospitals, the schools, roads to be built. So the Commission struggled along with very limited funds until in 1913 the sportsmen agreed to pay a license of $1.00. This money was deposited in the State Treasury in a special fund for the purpose of game protection and increase and payment of bounties. No money was taken for the protection of song or insectiverous birds from any except the hunter.

The Commission members in those days were, indeed, noble pioneers. Then, as now, they worked without pay in the interest of conservation, but in that early period they also paid their own travel expenses, and carried on under the abuse of the opposers of their aims. They fed birds and provided shelter for them in severe winter weather, and when unable to get funds to further the protection of game through other sources, they used their own.

Pennsylvania has traveled many miles on the road to wildlife restoration, for which Dr. Kalbfus and his contemporaries so staunchly cleared the way and laid the foundation. The following brief statistics speak louder and plainer than any words:

1. *Employees*
   August 1919—98 (including Dr. Kalbfus)
   August 15, 1944—227 (52 now in armed services)

2. *Funds*
   Revenue (by fiscal years—December 1 to November 30)
   1917-18—$338,348.64
   1943-44—$1,503,120.85
   Expenditures (same fiscal years as above)
   1917-18—$245,439.89
   1943-44—$1,183,483.13

3. *Game Lands owned by the Commission*
   1919—None
   May 31, 1944—749,998 acres (cost $2,894,-556.27)

Although the Commission did not own any State Game Lands in 1919, it did operate 19 preserves (now called refuges) on State Forest Lands, and 5 on privately owned lands on which the Game Commission paid the taxes for the privilege of their use. The Commission did not start to purchase game lands until 1920.

4. *Game Harvest*
   1918—5,065 tons
   1942—7,100 tons

5. *License Sales*

Year	*Resident*	*Non-Resident*
1918	311,290	478
1943*	570,418	11,827

* Preliminary, subject to change.

6. *Game Farms*
   1919—None
   1944—4

Dr. Kalbfus was killed August 10, 1919 along with Woody Kelly, the Commission's field superintendent in an accident at a railroad crossing in Warren County while on a land inspection tour with Commissioners Charles B. Penrose and John M. Phillips. But his brave, pioneer spirit marches on in those who carry on his work.

How Far Will a Shotgun Shoot?

Among sportsmen there is the age-old argument, friendly but sometimes heated, over the shooting qualities of various shotguns. The claim that "My gun shoots harder and farther than any gun in town" is always good for a hot contradiction in any place where hunters congregate.

The size of the shot used, according to a Remington Arms Company authority, has much to do with the range of the load. Another important factor is the angle of elevation when firing. For instance, when No. 6 shot is fired from a gun held slightly above the horizontal, the pellets cover an area of approximately 400 feet in depth on striking the ground. The nearest shot will fall at a distance of approximately 300 feet from the gun's muzzle, while the farthest will land some 700 or more feet away. When the gun is elevated at an angle of approximately 40 degrees, the area covered is greater, running from 400 to 900 feet.

A load of No. 4 shot will carry somewhat farther, with the nearest pellets striking the ground some 600 feet away. These distances are liable to vary from shot to shot as weather conditions, particularly the wind, have some effect on a shotgun's range.

It is the general opinion that No. 7½ shot fired in trap loads have an extreme range of 300 yards, but, in the interest of safety, trapshooting layouts provide greater distances for their danger zones.

General Journee, the French expert, worked out a formula to the effect that the maximum range in yards equals 2200 times the shot diameter in inches. When the gun is held at a horizontal position or only very slightly elevated, this formula gives the maximum range of popular shot sizes as follows:

No. 2—330 yards; No. 4—286 yards; No. 6—242 yards. No. 7½—209 yards; No. 8—198 yards; No. 10—154 yards.

"Balled" shot, which means two or more pellets stuck together, will carry even farther. The figures given pertain to standard loads.

STOLEN

Mr. William T. Farrell, 138-A, R. D. No. 8, Sharpsburg, Pa., a newly appointed Deputy Game Protector, had a rifle stolen from his home during his absence recently. The gun is described as follows: Savage 300—Serial No. 386656, equipped with sling strap

ATTENTION SPORTSMEN

Recently two wing bands from ringneck pheasants were sent in to the Division of Propagation and Research of the Game Commission.

They bore the following information: C. P. G. C. 41 674; B. V. F. & G. 1942.

Evidently these are bands which were attached to ringnecks released by individual clubs. Would the two clubs whose bands these are please write the Division of Propagation and Research and we will send them the information which came in with the bands.

There are no wild land animals in the Solomon Islands.

THINGS YOU MAY NOT KNOW

The chulu (coatimundi) is a small animal which has immigrated from Mexico into the southwestern states to such an extent that cougar hunters are equipping their hounds with wide collars to protect them from their vicious fangs. The chulu has a long snout which enables him to root in the ground for his food just like a pig. He is a relative of "Mr. Ringtail," the North American racoon, and has a somewhat similar tail.

The whale can jump higher than any other animal. It sounds silly, doesn't it, but this mammoth animal has been known to jump as high as twenty feet. And that's a whale of a jump.

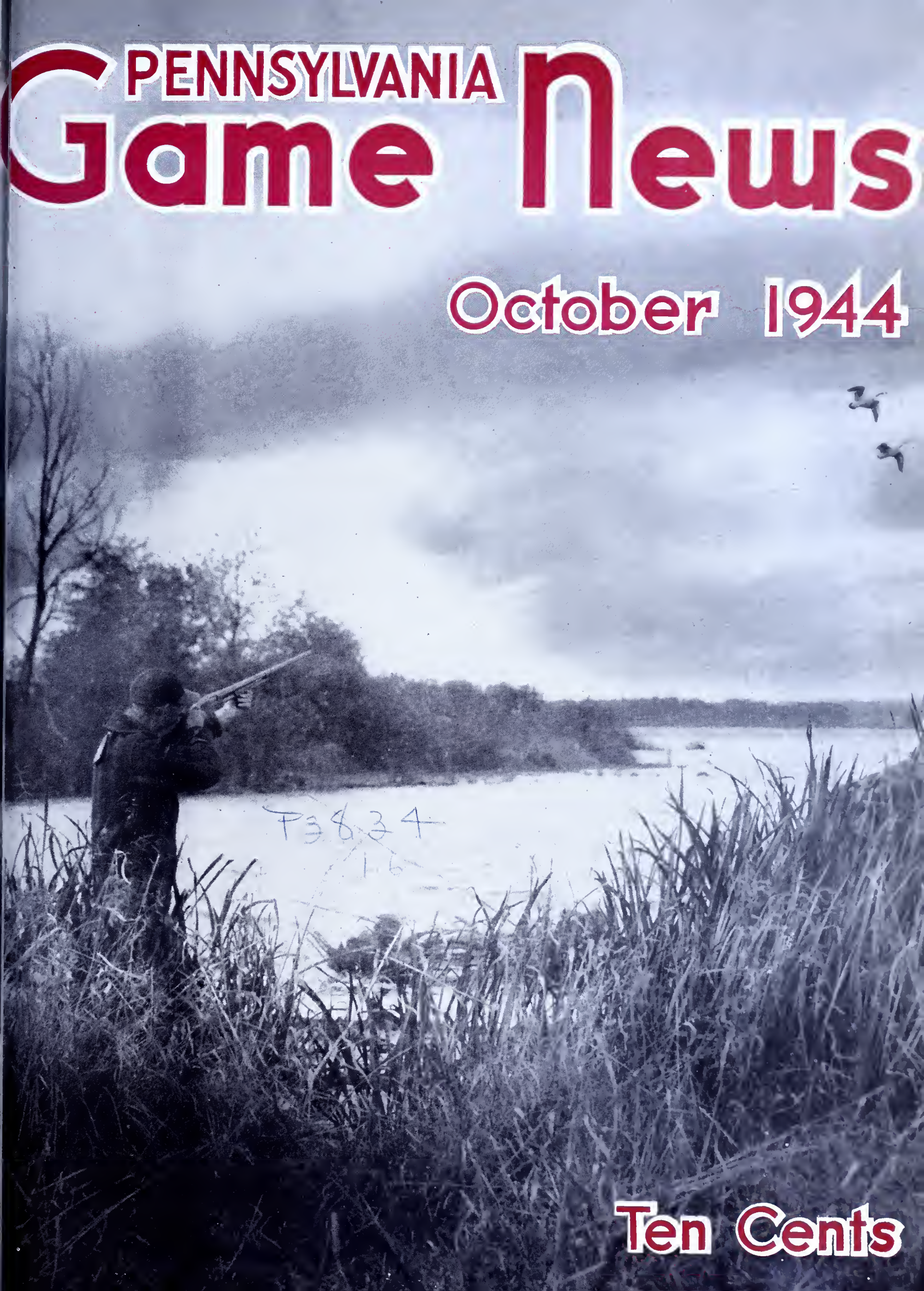
ANSWERS TO "WHO'S ZOO"

(Continued from page 10)

1. Mourning doves lay only two eggs and they are pure white, unspotted.
2. Canvasbacks, like all the diving ducks, must paddle along the surface to gain impetus for their take-off into the air. Their wing area in proportion to their body size is considerably smaller than that of mallards or blacks which rise perpendicularly from the water as if yanked up by a line from the sky.
3. A black bear would probably be in hibernation in this season indicated by the deep snow.
4. There is no historic record of a rattlesnake's occurrence in the State of Maine.
5. Polar bears inhabit the Arctic regions, penguins the Antarctic; they are never found together.

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EDITORIAL

OCTOBER, 1944

IN THIS ISSUE

★

The "Stove League" Meets on Accidents
By W. C. Shaffer

★

Out Where They Belong!
By Wilbur M. Cramer

★

Poverty or Conservation Your National Problem
By Jay N. 'Ding' Darling

★

First Ducks
By Sherman Lee Pruitt

★

How Many?
A clever quiz on waterfowl seasons and regulations

☆

Unexpected Dividends
By Fred Everett

★

Just Ramblin'
By the Editor

★

Bandannas are Versatile
By F. J. Floss

★

What is the N. R. A.?

★

With Those in Service

★

Cover by W. L. R. Drake and M. J. Myers



Photo by Fabian Bachrach

HON. EDWARD MARTIN
Governor of Pennsylvania

Hunt Safely Week

In an announcement on September 28 Governor Edward Martin said "I am declaring the week of October 23 as 'Hunt Safely Week.' During that period I strongly urge all sportsmen's organizations and others interested in shooting to preach safety in the field to every man, woman or youngster who totes a gun. I particularly urge that young hunters be taught how properly to handle firearms and how to carry on in the field in order to protect themselves.

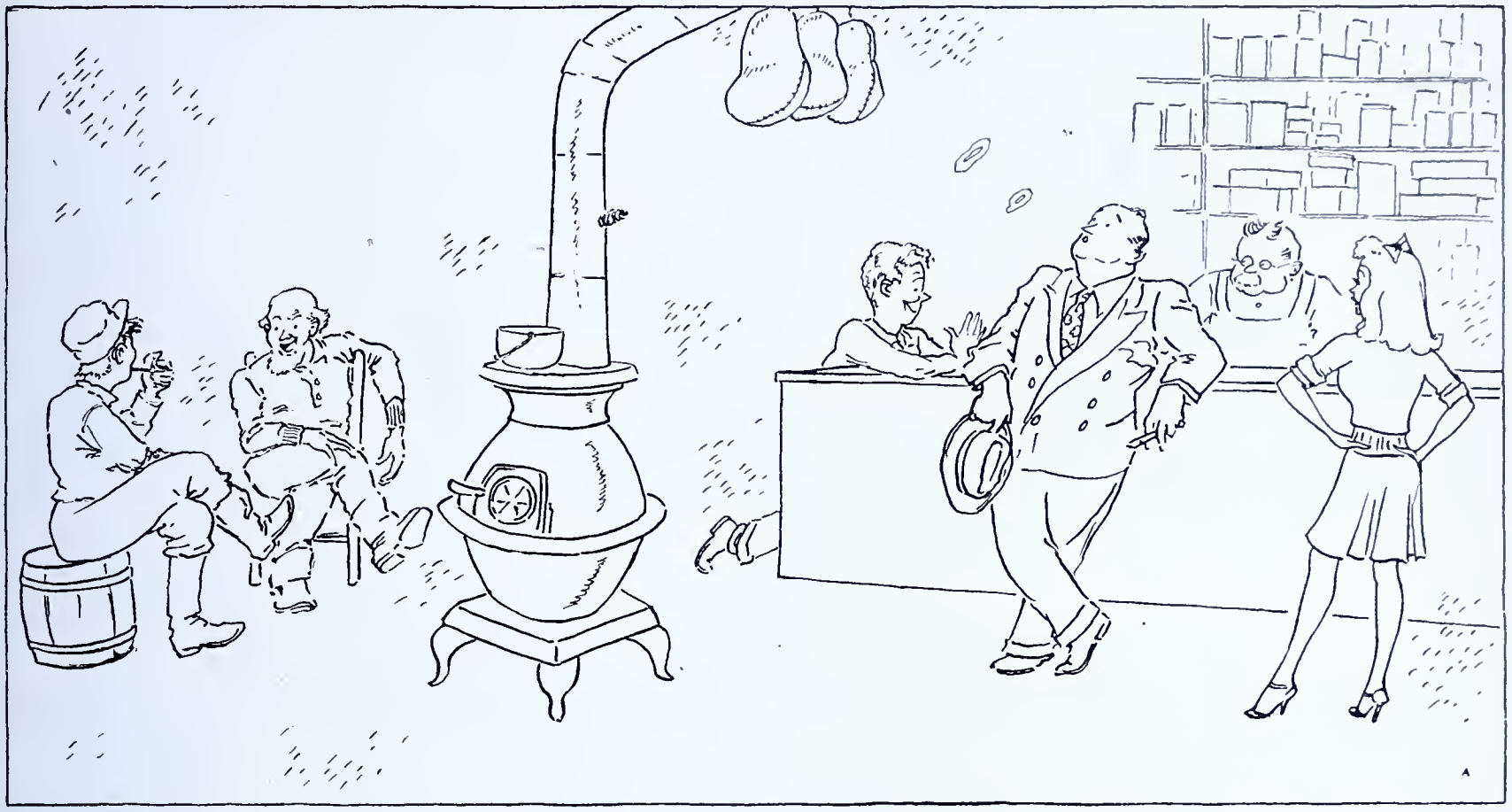
"I recommend also that this safety program be given impetus in the schools, and that the children be encouraged to prepare essays on safe hunting and to design safety posters and slogans. From them, I am positive, will come some very excellent suggestions which may later be put to good use by the Game Commission and the sportsmen.

"I understand that the Game Commission is planning to distribute thousands of colored safety placards prior to the opening of the season on November I urging hunters to 'Play Safe—Look Before You Shoot' and above all not to take unsafe weapons into the field, especially those which cannot stand the high-power loads which are used in shells and cartridges today. Additional placards will be available to any group or organization that wishes to use them in connection with local safety programs, and I sincerely hope that many will write in for them.

"Let's all of us do our best to make this first Pennsylvania 'Hunt Safely Week' a success!"



Opening Day—A "South-paw" Draws a Bead



The "Stove League" Meets on Accidents

By W. C. Shaffer

Illustrations by Jacob Bates Abbott.

AN EARLY evening session of the "Stove League" was shaping up nicely at "Thompson's General Store" near Evers Corners in a northern tier county in Pennsylvania just after the close of the big game season last winter.

The five "regular members" of the League, Joe Stutz, President, Ernie Mezzer, Vice President, Hal Jobson, delegate, Bob Darr, delegate, and Corney Clark were joined around the big pot-bellied wood stove this evening by Diz Clark, a brother of Corney's, and Harve Betz, occasional "contributing members."

The League did not need a Treasurer as little money was expended for any purposes except hunting licenses, shells and socks.

In a far corner, on a mackerel keg, sat little Jimmy Ebson, a red haired, freckled faced lad, whose short stature and slow mental processes fooled many on his age. He had just passed his sixteenth birthday and had narrowly escaped death by inches while hunting.

You ought to know something about the Stove League to appreciate its membership and purposes. Its members, most of whom are between 30 and 45 years, work in the mountains and reside in this rural community. Every spare moment is devoted to huntin', fishin', catchin' foxes, or when its too hot, horseshoe pitchin'. The League's purpose is singular and its motto all inclusive "TO DO SOMETHING ABOUT THIS HUNTIN' BUSINESS."

During the winter months darkness finds most of the odd thirty inhabitants of this mountainous village fairly well along in slumber land. This hour seems to be the accepted, without prearrangement, signal for an assemblage of the Stove League, who boast that they represent and speak the minds of thousands—including the five paid-up members. To question the honesty or integrity of a "regular member" or in some cases to even raise a question of doubt might result in dire circumstances to the questioner. Their statements are not to be taken lightly.

Very few persons dare invade the sanctity of the League sessions. Fourteen year old, blond and pretty, Frizzy Gates had no such fears however. She had come to the store for a package of "Five Brothers" for her "Grampy," who was suffering from the gout and needed something to "gnaw on" to help put in the long winter evenings. She spoke a cheery "hello" to Jimmy Ebson, half hidden in the corner, whom she regarded as a highly desirable, and she hoped, a prospective suitor. To her way of thinking he was also somewhat of a hero—a *man* who had just missed becoming "slab happy" while out huntin' (a term applied to a dead person in a morgue). Frizzy, after tucking the tobacco in her bright red coat, which she wore continuously from the first of September until the first of April, so nobody would mistake her long blond tresses for a deer and shoot her, departed slowly, her dancing soft blue eyes cast at Jimmy.

As she left and the session was about to begin a car with bright headlights pulled up in front of the store and stopped. This, however, did not deter President Joe from commenting, "There was too damn many huntin' accidents last Fall and the Game Commission 'aint doing nothin' about it." The regular and contributing members in attendance agreed with a nod of their heads, completely supporting the statement of their illustrious president.

The stranger who had driven up in the automobile, entered the store and ordered a pack of cigarettes from the storekeeper, white-haired seventy-year-old Lem Thompson, who prided himself of the fact that he had been in business at the same location for past forty-two years. After obtaining his purchase he slowly opened the package, lit a cigarette, leaned on the counter and became deeply interested in the topic of conversation.

"I don't believe half of these city guys can see what they are shootin' at." volunteered Bob Darr.

"You are absolutely right," said Vice President Ernie Mezzer.

"You remember little Jimmy Ebson sittin' right over there," pointed his right index

(Continued on page 24)



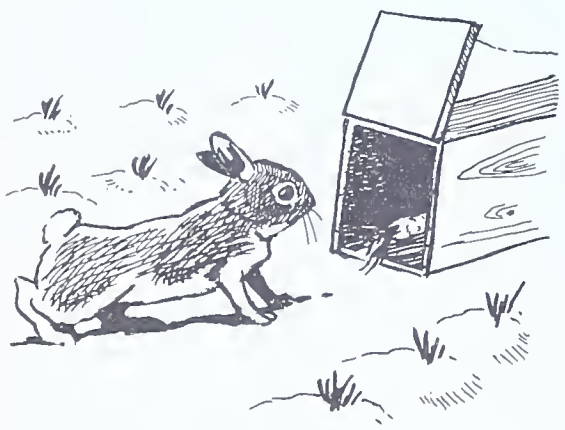
Illustrations by Jacob Bates Abbott.

Out Where They Belong!

"A pleasure unshared is half missed." The sportsmen of Allegheny County discovered the truth in this adage last winter when they shared their rabbit supply with their neighbors, and so were able to have their rabbit and eat it, too.

The Pennsylvania Game Commission did not import Western cottontails last winter because reliable shippers were reluctant to tackle large volume orders with the existing transportation conditions, the danger of retarding the war effort by such shipments, and because of the possibility of importing diseased rabbits. It was decided to replenish depleted areas with native trapped animals.

The Commission has found over a period of seven years that many thousands of native rabbits are available annually in parks, cities, towns, institutional grounds, watersheds, military reservations and other protected areas where they feed on Victory gardens and make general nuisances of themselves. These healthy, well-fed creatures can be trapped and removed to open hunting territory without the necessity of making shipments in heated express cars. Furthermore they do not have to be "broken in" to our environment like their western cousins.



Rabbit trapping and transfer activities were not developed because of the war, since this program was started in 1928 in southeastern Pennsylvania, but to relieve damage conditions and remove surplus animals from protected areas.

Old Br'er Cottontail and his relatives preyed on gardens to some extent, but it was not until the Victory garden program started in 1942 that people generally realized there were so many of the unwelcome animals living in their cities and towns. The raising of food in vast quantities during war-time is a National necessity, but supplementing the available domestic supply of meat with that of wild game, and the providing of recreation to thousands of our citizens through hunting, fishing and other outdoor sports are also National necessities. The problem confronting the Game Commission, therefore, was one of preventing and relieving rabbit damage and at the same time salvaging the rabbits for hunting in open territory removed from cities, towns and protected areas.

It is important that the hunting areas of the State where a scarcity of rabbits exists be well stocked.

Heavily populated counties such as Allegheny have many protected areas, parks, etc., on which to draw for their rabbit supply. The rural territory in Allegheny County is limited, and a great many hunters do the majority of their hunting in the adjoining counties—so they willingly consented to have those areas stocked with Allegheny rabbits. This idea truly represents practical game restocking.

The Philadelphia metropolitan area, like Allegheny, has little huntable area, but a good supply of the well-fed, protected Victory garden and park animals. The counties surrounding Philadelphia—Delaware, Chester, Montgomery and Bucks—are likewise thickly populated, for large portions of these counties constitute the Philadelphia metropolitan area. The parks, nurseries and Victory gardens in these suburban areas are the rabbit's paradise. Joe O'Bryne, in his column in the *Philadelphia Inquirer* says, "if only half the reports are true about the prevalence of rabbits in the vicinity of Victory gardens, 20,000 or more rabbits should be trapped in Philadelphia and environs."

Since hunting is very limited in such built-up localities, the sportsmen from these areas mostly do their hunting elsewhere. Many of them troop hopefully upstate into the nearby counties of Lehigh, Northampton, Schuylkill, Carbon, Monroe and others within easy striking distance. Portions of some of these counties are largely devoted to coal mining, where good hunting territory is rather limited, and they do not have many good rabbit trapping areas. Local residents look upon the non-resident hunters as interlopers, encroaching upon the game supply which they imagine should rightfully belong to them. So between the lack of proper diet, and the number of men and boys gunning for him, Br'er Rabbit hasn't much of a chance of survival. His numbers in the coal mining counties become depleted much more quickly than in good farming regions.

The hunters of the thickly populated sections of Philadelphia and vicinity could well take a hint from their fellow sportsmen in the Allegheny area and share the rabbits they trap from their parks and Victory gardens, etc., with the counties in which they do a lot of their hunting. In this way they could not only help themselves and the Victory gardeners, but make lasting friends of the sportsmen who live in the regions to which the bunnies are shipped.

Some of the less thickly populated counties which have many parks, military areas, etc., from which to trap rabbits may also want to be good neighbors to their surrounding counties which have less protected area, but more "wide open spaces" in which to hunt.

Last winter three Game Protectors did an outstanding job of box trapping on the Letterkenny Ordnance Depot Military Reservation, near Chambersburg, in Franklin

By Wilbur M. Cramer

County. This area is composed of many farms purchased by the Government for the handling and storage of ordnance supplies. No hunting had been permitted for two years and the rabbit population increased considerably. The Commanding Officer of this Reservation agreed to cooperate with the Pennsylvania Game Commission and provided the proper passes for our officers to enter therein each day for several weeks during the middle of the winter. He thus secured for the military authorities the good will of the sportsmen and other citizens in Cumberland and Franklin Counties and instituted a splendid public relations job. The sportsmen of these counties benefitted through this program to the extent of 2,086 rabbits trapped and removed from the reservation—more choice stock than they received from the former importations.

Following the securing of trapping permission from the Letterkenny officials, the Commanding Officer of the Pennsylvania Ordnance Works at Allenwood, about eleven miles South of Williamsport, granted permission to our officers to trap and remove rabbits from that military reservation. As a result 887 rabbits were secured by one Game Protector in 26 days, the highest number taken in any one day being 79.

The cities and towns from which one hundred or more rabbits were secured are as follows:

Allentown	1,280
Pittsburgh	807
Bethlehem	717
Reading	572
Williamsport (South Williamsport)	512
New Castle	480
Harrisburg	371
Somerset	331
Zelienople	329
Wilkinsburg	304
DuBois	249
State College	243
Mt. Lebanon	235
Westmont	234
Indiana	234
West Sunbury (Butler County)	232
Sellersville	231
Evans City	228
Jersey Shore	201
Bridgeville	195
Brockway	194
Oil City	189
Lehighton	178
Carlisle	176
Bloomsburg	170
Schuylkill Haven	164
Ellwood City	153
Millersburg	152
Punxsutawney	151
Uniontown	150
Sharon	147
Salisbury	147
Butler	144
Lewisburg	144
Altoona	139
Grove City	137
Lancaster	136
Canonsburg	132
Coverdale (Allegheny County)	131
Brookville	128
Camp Hill	126
Franklin	124
Beavertown	114
Easton	113
Baden	113
Monongahela	110
Ridgway	107
Lansdale	106
Homestead	103
Geistown (Cambria County)	102
Southmont	101
Wyomissing & Wyomissing Hills	101
Mansfield	100
New Eagle	100

Watersheds, parks, institutional grounds, State Game Farms, military reservations and other protected areas producing the most rabbits were as follows:

	Number of Acres Trapped:	*No. Rabbits:*	*Acres per Rabbit:*
Letterkenny Ordnance Depot, Chambersburg	1,750	2,086	.84
Auxiliary Refuge No. 99 (Maiden Creek Watershed, Reading)	1,000	1,017	.97
Pa. Ordnance Works, Allenwood	2,000	887	2.25
State Epileptic Colony—Selinsgrove	362	340	1.06
State Wild Turkey Farm, Juniata County	200	196	1.02
Fisher State Game Farm, Montgomery County	175	161	1.08
South Park—Allegheny County	150	147	1.02
Dutch Hill Refuge, Schuylkill County	450	144	3.12
Jordan State Game Farm, Lawrence County	200	124	1.6
North Park—Allegheny County	125	118	1.06
Loyalsock State Game Farm, Lycoming County	200	116	1.72
Smyser Tract, Pleasureville, York County	60	111	.54
Eastern Penitentiary—Graterford	150	106	1.42

Game Propagation Areas which supplied the largest numbers of rabbits were as follows:

	Number of Acres Trapped:	*No. Rabbits:*	*Acres per Rabbit:*
A-5 Wildwood Park, Harrisburg	200	153	1.3
A-8 Nazareth Cement Company	155	139	1.11
A-9 Berks County Prison Farm	300	191	1.57
A-10 State Hospital for Crippled Children, Lancaster County	235	114	2.06
A-11 Whitte Lands, (Springtown, Bucks Co.)	125	237	.527
A-12 Newberry Twp., York County	297	129	2.3
A-13 Mary Immaculate Seminary, Northampton County	460	284	1.62
B-1 White Haven Sanatorium	280	114	2.45
B-27 Bishop and Miller Lands, Wayne County	250	100	2.5
C-12 Dalmatia Water Company, Northumberland Co.	110	106	1.04
D-6 Briner Property, Perry County	80	117	.68
E-1 Western State Penitentiary	325	186	1.75
G-1 C. R. Garland Farms	201	122	1.65

For several years there has been friendly rivalry between the Game Protectors and sportsmen of Berks County in Eastern Pennsylvania and the Protectors and sportsmen of Allegheny County in Western. According to the records of this past season, Allegheny County has for the second consecutive year been the leader in the number of rabbits trapped with 2,842 while Berks County totalled 2,468. The latter has been fortunate over a period of years in having one of the outstanding rabbit areas of the State, namely, the City of Reading Watershed at Maiden Creek, Auxiliary Game Refuge No. 99.

(Continued on page 26)





"Poverty or Conservation Your National Problem"

By Jay N. "Ding" Darling

Honorary President, National Wildlife Federation

Last month Mr. Darling called attention to the wanton destruction of our natural resources, and the alarming point to which many of them have ebbed. Now he tells what can be done to prevent further destruction through wise use of them.

What Science Can Do

CONSIDERING the almost unlimited possibilities for substitutions in the field of minerals and inorganic, unrenewable materials, we can say with considerable degree of confidence that there will be no "bottle-neck" in the long run of metals for industrial needs and human requirements, at least in times of peace.

It is unfortunate, however, that in the process of producing substitutes for metallic materials, an extra strain is put upon the organic sources of materials, where the real bottle neck is located.

Running through the whole scale of new plastic materials: Rayon, Nylon, Lucite, Pliofilm and the Bakelite group, to mention only a few, the constituent elements are chiefly of organic origin and every known organic substance, living or dead, has come and must continue to come through that single agency of green leaf chlorophyl plus sunshine. If there were any virtue in wishing, we could wish that our alchemists would pick on something besides carbon to transmute into mineral substances. Everybody wants to use carbon for something or other and no one has ever been able to make any.

In the field of heat, energy and power production, there is no fuel which is not of organic origin, with the possible exception of mineral oil, whose mysterious origin has not been satisfactorily proved. Both coal and oil must be classed among the non-renewable resources and any substitutions must come from the organic or vegetable family. Synthetic gasoline, the alcohols and all combustibles are made from organic matter. Then add further to the strain on the organic bottle-neck all the foods we eat (whether animal or vegetable) all the textiles, linen, cotton or wool, all the millions of tons of paper used daily, all the gun-powder, cigarettes and feathers on women's hats. To put all expended energy also in the list would involve some duplication but its drain upon organic resources is so vast a daily item that it should not be neglected in the comprehensive concept. From the tiniest flip of a fish's tail to the throbbing engines of the largest steam turbine in the world, every move burns up, directly or indirectly, some of the organic matter laboriously produced by the minute green cells in leaves.

What Only Nature Can Do

Picture then in your mind, if you will, this vast army of human demands lined up like a breadline before a soup kitchen and waiting to be served by that sole producer of relief rations, the green pigment in vegetation, and you will get a new conception of what a "bottle-neck" means. There is no other source. Without green vegetation there is no chlorophyl. Without soil and water there is no vegetation. Every grassy plain or forest denuded of its vegetation and every marsh drained of its water by man's wasteful practices constricts the bottle-neck. Every careless farmer who by negligence allows the topsoil to wash from his land shortens the period of time that his soil can contribute to human needs.



Photo U. S. Soil Conservation Service.

Every careless farmer who by negligence allows the topsoil to wash from his land shortens the period of time that his soil can contribute to human needs.

Among modern current events I can think of no more excruciating mental agony than must have been suffered by those battered troops on Bataan Peninsula, scanning the skies to the east in vain for the relief planes which never were to arrive. That is very real to all of us, and tragic in our total helplessness to aid. I wish it were possible to dramatize for you the utter hopelessness of our situation on the North American continent when through failure to heed conservation warnings the pinch of organic shortages overtakes us all and from which no relief will be immediately available.

There was a time when population pressures on this continent were easily relieved by opening up new lands. Today there are no new frontiers. We must sit down where we are and plan our subsistence for the next ten thousand years on what we have left of our organic resources.

Today we are all busy with war. Everyone is employed, or should be. But tomorrow when the war is over we will be again confronted with the problem of peacetime employment. The trials of the late depression are too recent not to be remembered. But no one seemed to take seriously the fact that our population had increased by leaps and bounds while our soils, grasslands, wildlife and forests had shrunk by at least ninety million acres within the last decade.

Did you ever play "Going to Jerusalem" or "Musical Chairs" where the guests at a party march to music around a double row of chairs which contains fewer seats than there are guests? When the music stops everyone tries to sit down. Because there are fewer seats than there are players somebody generally sprawls on the floor or is left standing without any chair. Then another chair is removed, the music and marching start again and so on until there is but one chair left.

One hundred thirty million people in our country have been playing the same game only we have been using land instead of chairs and an amazing number of people already have no place to sit down. Then, if we add the distressed populations of Europe who must be fed, our little game becomes serious business indeed because the exploitation of resources for war in the interest of national survival has exceeded any peace-

time exploitation we have ever known. When the emergency is past there will be new bald spots on the surface of our continent where natural resources have been exhausted. Those bald spots will spell less food and more homeless men.

In our desperation, if we follow our customary pattern we will juggle the currency, reduce working hours and redistribute wealth, we may even try substituting Dictatorship for Democracy, but none of them nor all of them put together will restore the soils we have so wastefully depleted. Such inventions of the sociologists and economic doctors will be of no avail in reforesting our cut-over timberlands. They cannot reclothe the Dust Bowls with grass by social reform, neither can they bring back the eroded topsoil from the Mississippi Delta and put it on the abandoned farms. Once exhausted, there is no simple cure. Only a public aroused to the dangers can provide the prevention before it is too late.

Conservation becomes, then, not a matter of sentimental appreciation of the beauties of Nature. Neither is it an idle humor of cloistered scientists in their experimental laboratories. It is grim business for statement and government executives and we won't have statement and executives who will know what it is all about until the teaching fraternity takes over the job of educating a new crop.

Conservation and History

Some day a new historian will arise who will revolutionize our study of the past and give us a much better understanding of the problems which we ourselves are meeting. This new history will give us an interpretation of the causes which produced the events, rather than a compilation of dynasties, dates and victorious generals. Instead of telling us in detail *how* Genghis Khan and Alexander the Great fought their battles, the new historian will tell us *why* they fought their wars of conquest. And the reasons will exactly parallel the causes which led the Japanese to invade the Asiatic continent, the Italians to slaughter the Ethiopians and Hitler to shatter all the international covenants to loot Europe. From the first racial conflicts of written history on down to the present day, wars have sprung from the same background: an increased racial population wore out its natural resources and relieved the pressure within by arming its surplus men and moving in on the less depleted pastures of its neighbors.

Archaeologists tell us that this process started in the Gobi Desert and whether or not that was the cradle of the human race, the fossilized remnants of profuse vegetation and abundant animal life are all that remain to show that man once lived there in obvious abundance until depleted natural resources forced the inhabitants to seek new lands. Out of this area came successive waves of migrations which moved westward into Mongolia, India, Persia, Arabia, Turkestan, Palestine, Mesopotamia, the Nile and the Sahara, the Caucasus, the Mediterranean state and finally into what we now call continental Europe.

Buried in the dust and rubble of ages along these ancient migration lanes are crumbling palaces of kings and buried cities which once housed thriving populations, convincing evidence that those desert lands were once sufficiently productive to maintain prosperous communities. You couldn't pasture a healthy Dakota grasshopper there now on 100 square miles. Fabled lands "flowing with milk and honey," the valleys of the Ganges and Euphrates, Arabia, Persia and Babylon were not always the deserted wastes they are today, inhabited only by struggling remnants of the former hordes searching an exhausted land for sustenance for their flocks and a meager livelihood for themselves. Architects and artisans do not go off into a desert to erect such majestic designs to masonry as mark the remains of Bagdad.



Education has become the only pathway that can lead us out of the doldrums. Above is a group of biology teachers at a summer conservation school in Tennessee.

What vast natural resources must have blossomed on the sandy wastes of Egypt to support the armies employed to build the Pyramids! For every stone in their vast bulk there must have been at least a hundred acres of land in full and continuous production to feed the laborers who quarried the rock and hoisted it into place. Let your imagination fill the gap between the vast operations during the building of the temples of Karnak and this flea-bitten remnant of Egypt which dips from the Nile enough water to raise a handful of rice, the per diem ration of its remaining population.

Few know that the mysterious city of Timbukto, a ghost town of prehistoric origin isolated by miles of arid waste in the middle of the Sahara Desert, was once surrounded by fertile fields and olive groves. Buried beneath its desert sands is complete evidence

(Continued on page 27)



They cannot reclothe the Dust Bowls with grass by social reform. Above is photo of terrific dust storm in the Oklahoma Panhandle near Kenton, taken by Leo A. Luttringer, Jr.

First Ducks



By Sherman Lee Pruitt

Illustrations by Jacob Bates Abbott

I WAS but 15 when I shot my first duck, 16 when I knocked over a buck deer in Pennsylvania. Now, in my mid-thirties, I have but one more outdoor goal to attain before I cash in my chips, namely to snag into a Salmon—Atlantic variety.

To get back to that first duck: It happened down on the vast marshes of the Eastern Shore in Old Maryland where Tidewater, Virginia, shares with Maryland superlative wild-fowling.

Uncle Jim Sterling was my companion and mentor as well as guide. Old Jim lived near the tidal creek just outside of our village and he shared his clean but meager quarters with his Chesapeake Bay retriever "Ginger Queen". I resided near Jim's weather-beaten shack at the time and Summer and Winter found me in the old guide's company. Old Jim was rated the best quail and duck shot on the "Sho" peninsula and his culinary endeavors with wild game makes me hungry even as I write this piece. I had been out in the Bay fishing with Jim many times and the Fall of which I write he promised to take me into the wild marsh for a duck shoot.

Old Jim kept his word. One frosty moon-drenched November night he stopped by our farm-house and after pleading with my mother that I would be safe I finally got permission to accompany the old guide at 3 a. m. the following morning.

It was a bit nippy but the air was still when I arose the next a. m. I had hardly slept a wink. Some people say they count sheep to put them to sleep. I counted ducks, a couple thousand of them. When I did doze off I dreamt of ducks. My mother soon had a hot breakfast ready. There was sausage and buckwheat cakes, incomparable coffee and fresh cream. I ate heartily for I knew I would need nourishment before the day was done. Mother kissed me good-bye and I picked up my bag of lunch and went out into the dark, cold morning. Stars were pin-points of light in the cold sky. I walked briskly and was soon at Jim's abode. He was ready. He had his ten gauge double hammer gun and a little twenty for my use. A sackful of decoys and a jug of water, coffee pot, coffee, milk and sugar completed the outfit.

The Chesapeake "Ginger Queen" was raring to go and she jumped up, put two grimy paws against my chest and licked my face. The boat landing was only a few hundred feet from the shack and we soon had the decoys and gear in the sturdy skiff of Jim's. A short journey of a mile and we were at the point where sound and creek met. A brush blind was quickly constructed then Jim put out the set while I stayed in the blind with the Chesapeake. The dog and I were great friends and the grand old retriever was almost human in intelligence. Jim finished his task then came into our snug hideout.

As we waited for dawn and the morning flight, he spun tales of the market hunting days when ducks and geese were counted in millions and anything less than canvas-back, redhead or mallard were considered by the professionals "trash ducks." I hung on to every word the old man said. He was sort of like a god in my boy's mind. I got so interested in the old fellow's discourse on other days that I almost forgot that we were on a real hunt. The old man could relate some thrilling tales and I believed all of his "tall" stories.



"Three golden-eyed whistlers were our first game."

As the first pink rays of dawn appeared we prepared for action. Three golden-eyed whistlers were our first game. Jim called them "King Divers". They came out of the marsh at our backs, circled warily over the blocks then came down to pitch into the decoys. Jim nudged me and said "take the one to your right." We rose up as one, and wonder of wonders, at the report of my little twenty a drake slapped down smack into the decoys, stone dead. Jim also got one and the remaining duck got away from the scene like all the bats from the "hot place" were on his tail. I didn't blame him, for Jim rarely missed a shot at forty yards. Ginger Queen retrieved our ducks. My first duck, and a fat, well feathered beauty. I sat there entranced, hefting and fondling our game. I was in gunner's heaven. No thrill ever quite comes close to the one where you kill your first duck. To top it off I had the services of a peerless Chesapeake to bring me my game.

Our next visitors were a small flock of black-heads. They circled warily just out of range then, just as I thought they were coming in, they became frightened at something and veered off heading seaward until they became but specks in the leaden sky. The bright coffee-pot was put down as the culprit and we covered it with water-bush. About ten minutes after the black-heads disappeared, two mallards suddenly appeared from nowhere right over the blind. Jim went into action and got a fat green-head with each barrel. It was an unforgetable thrill to sit and witness his miracle of pulling those two birds down out of the air—a genuine feat I have never seen duplicated. Ginger Queen honored Jim's accomplishment by doing her usual flawless retrieving act.

We had no sooner gotten settled again when a single whistled over. It was a slow flying merganser. "Take him" said Jim. I fired nervously and missed with both barrels. Jim laughed, "You got to lead 'em kid." "They fly different than quail." I had to agree. That merganser was slow as ducks go, but he was fast enough for me. The morning flight tapered off. Jim blasted one more King Diver out of the blue who had mistaken our set for a duck convention. As the sun climbed up it got warm and I shedded a few of my many wraps. Jim lit a small driftwood fire and made coffee

(Continued on page 28)



Mallard

HOW MANY?

"HOW many ducks can I shoot this fall?" inquires a hunter. "Yes I've read the regulations but I'm still puzzled by some of the legal terms. I want to clear up a few points."

The duty of seeing to it that these regulations are enforced falls on the experienced shoulders of W. E. Crouch, Chief of the Game Management Division of the U. S. Fish and Wildlife Service. Let's quiz him on the subject.

Question: Does the daily bag limit on ducks remain at 10?

Answer: Yes, except that you may take an additional bag only of 5 mallards, widgeons or pintails, or any combination of these three ducks.

Question: But suppose my first 10 ducks were all mallards—can I shoot 5 more mallards for a total of 15?

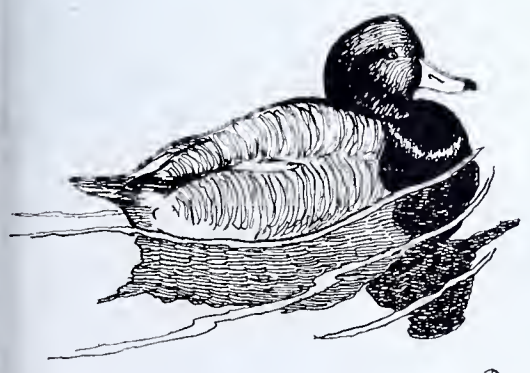
Answer: Yes. And the answer would be the same if you had asked about pintails or widgeons.

Question: Can I kill 5 more black ducks if I have a bag limit of 10?

Answer: No. The black duck is not a mallard although often erroneously called a black mallard.

Question: Why the extra bag on these particular ducks?

Answer: Because they are now the most abundant species. They are the species most often concerned with crop damages. Frankly, we hope to control their depredations as much as possible by allowing hunters a larger bag. Bear in mind this is only a temporary relaxation. The extra bag might be cut off at any time. It certainly will be when they cease to be a problem in crop damage.



Redhead



Bufflehead

Question: What about canvasbacks, redheads and buffleheads?

Answer: This year you may take a full daily bag of 10 canvasbacks, 10 redheads. or 10 buffleheads. But not more than 10 in the aggregate of the three kinds.

Question: What's the law on wood ducks?

Answer: You are permitted to take daily 1 wood duck and to have not more than 1 wood duck in your possession, except in Massachusetts and North Dakota where no open season is provided.

Question: Does this 1 wood duck count in my daily bag limit?

Answer: Yes, it must be included.

Question: What is the possession limit on ducks?

Answer: 20, and in addition you may possess 10 mallards, widgeons or pintails, singly or in combination.

Question: Why has the daily bag limit on American and red-breasted mergansers been boosted to 25?

Answer: They have become so numerous that trout waters are being depleted by them. In some places they are now a real menace to fish propagation. Incidentally, there is no possession limit on them.

Question: The daily limit on coots is also 25, isn't it?

Answer: Correct. Coots compete with the ducks for food. Hunters ought to take more coots; learn to cook them. We have a number of interesting recipes which will be mailed free on request. Just address U. S. Fish and Wildlife Service, Merchandise Mart, Chicago 54, Illinois.

Question: What about goose limits?

Answer: There is no change from last year on Canada geese and brant. The daily limit is 2, possession limit 4. These may be all Canada geese, all brant, or any combination of the two.

Question: May I legally shoot a Ross's goose, swan or crane?

Answer: No open season at any time.

Question: How about snows, blues and white-fronted geese?



Pintail

Answer: This calls for two answers: (1) In the Pacific Coast States the new daily bag limit in effect this coming season allows you to take 4 snow geese, 4 white-fronted geese, but not more than 4 in the aggregate of both kinds, plus 2 of Canada and brant singly or in the aggregate. The possession limit is two daily bag limits. (2) In the rest of the country, with certain exceptions, the new daily bag may include 4 snow geese, 4 blue geese, but not more than 4 in the aggregate of both kinds plus 2 of Canada and white-fronted geese and brant singly or in the aggregate. Possession limit, two daily bag limits.

Question: What are the "certain exceptions"?

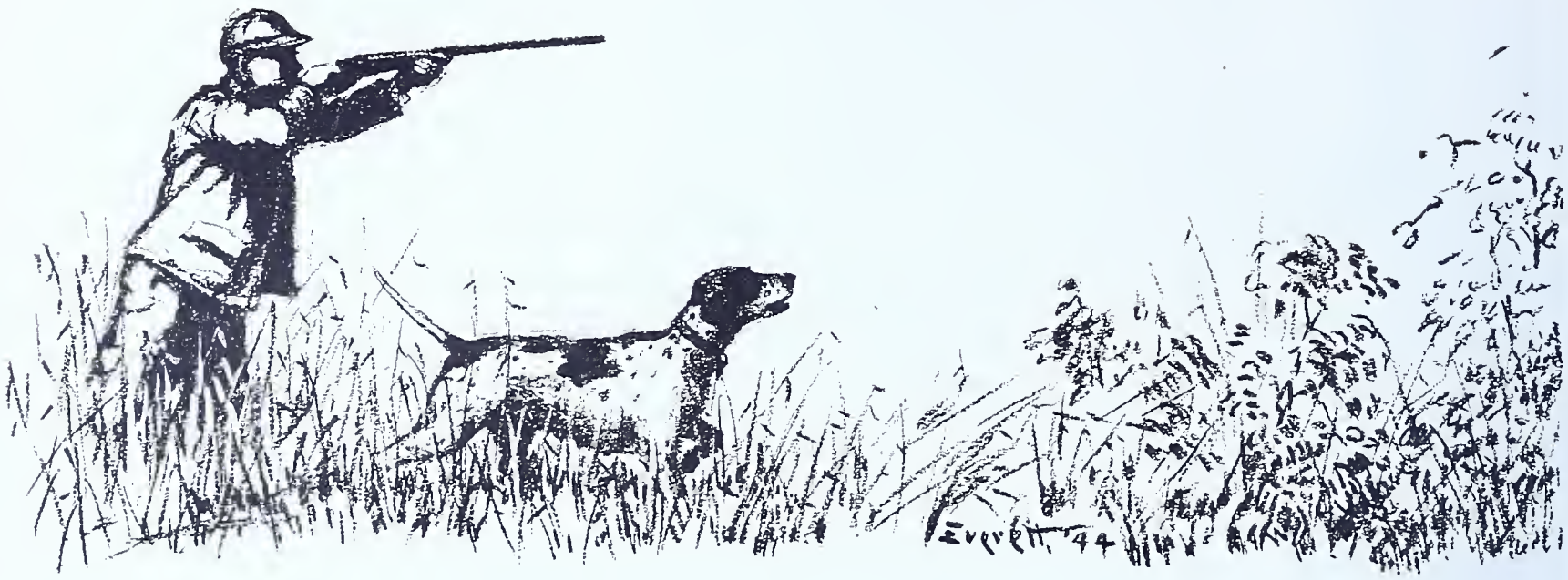
Answer: No open season is provided for snow geese in States bordering the Atlantic Coast, in Idaho, and in Beaverhead, Gallatin and Madison counties in Montana.

Question: What time in each day of the open season is waterfowl shooting allowed?

Answer: The shooting period for migratory game birds this year will be from one-half hour before sunrise to sunset until November. On November 1, as modified by State Law, shooting may not begin until 9:00 a. m., and on November 2 and thereafter it begins at 8:00 a. m. and ends at 6:00 p. m., unless sunset occurs earlier. The taking of waterfowl by means of bait or with the aid of live decoys is not permitted. Sportsmen may retain birds lawfully taken for a period of 45 days following the close of the open season.



Baldpate



Unexpected Dividends

By Fred Everett

THERE is an old saying that you can't get out of this life any more than you put into it.

I don't believe it. Not unless the saying means that, *on the average,* you get back about the same amount. It seems to me that there are times when one works his head off with no apparent results. At other times, for practically no special effort, one reaps a heap of unexpected dividends far in excess of what was put in.

I suppose you are wondering what brought about this sudden burst of philosophical deduction. If you will do what I have just been doing, I'll bet my bottom dollar you will not only understand but will heartily agree with me. And that you will reap some of these unexpected dividends, too.

If you are anything like me, you have scads of snapshots stuck away in every conceivable place. Pictures of hunting, fishing and all kinds of outdoor scenes mixed in with a lot of just ordinary shots. Once in a while I have to dig out my pictures to find ideas or illustrations for articles. That is what I was doing, trying to locate a special snap I had taken of a pair of pointers posing on quail. I needed it for proof of what I had just written in the hunting story, "A Bird in the Hand," published in the June, 1944, issue of this magazine.



As usual, I had to unearth, then paw over a lot of pictures which otherwise I wouldn't see in years. You know what that means. What should have taken a few minutes, required hours as, one after the other, each picture brought back memories. Among them I found a few which have forced me to lay aside all other work and talk about unexpected dividends. For surely, of all I have received, the richest and most lasting are payments for no particular effort. And the beauty of it is that, as time goes on, the dividends will grow bigger and be paid more often.

There comes a time in the life of every sportsman-father who has a son or outdoors-minded daughter, when he must make a decision. Most of us have so little time to hunt or fish that we jealously hoard every minute of it for ourselves. Anything which would slow us down or interrupt those precious hours is not tolerated. So we put off the day which we know must come sometime—the day we finally give in to the entreaties of the offspring and say, "Oh, all right, come along if you want to."

Naturally, all fathers are not that way. Some start planning for that day even before they know whether it's to be a boy or a girl. Yet even they must decide when the youngster is old enough. That decision isn't so hard when hunting because most states set the age by law. But when it is fishing, especially trout fishing with flies, it's pretty tough making up one's mind just when the little shaver should be given an outfit and told to go to it, or should I say, come along.

It has been my experience that we grown-ups don't give the youngsters enough credit for their abilities. Or that we are innately stubborn and refuse to admit even to ourselves that the noble art of bird-hunting or fly-fishing, which we practice so diligently and in which we pride ourselves for being so expert, is, after all, only child's play.

Do I hear a murmur of dissent? There was a time when I wouldn't agree, either. But that was before I took the pictures I have in front of me and before I became interested in establishing Youth and Wildlife Clubs in the schools.

You may have heard about such clubs. It was back in the year in which that grand leader in conservation "Ding" Darling, aided by President Roosevelt, first issued the call to all outdoor-minded organizations to band together under the name of The National Wildlife Federation that the late Dr. Phil Gootenberg and I joined forces to establish junior sportsmen clubs in New York and New Jersey.

The following year, it was my good fortune to attend the Wildlife Convention at St. Louis when the National Wildlife Federation adopted its constitution and elected Darling as its first president. At that convention, I had the pleasure of making the first speech calling for conservation education in the schools and of appearing before the first Board of Directors of the Federation, who unanimously adopted my resolution to establish an educational program as one of its purposes.

That program is now under way. Many states have set up their own systems, some are partially interested, while others have no conservation educational policy. Yet, in one way or another, the movement is making progress. Conservation departments are supplying educational material in words, pictures and talks for schools and organizations. Local educators are introducing some



Illustrations by the Author.

form of conservation instruction in their science and other classes. Many organizations, such as the Izaak Walton League, Audubon Society and similar groups, are sponsoring local programs for the younger generation. In many sections, sportsmen's clubs have taken the youth under their wing. All in all, the prospects, slow to be sure, are nevertheless encouraging for the future of conservation.

Yet, in this time of unusual danger to our natural resources, due to the contingencies of the war effort, we need an even greater, more rapid progress in order to make our young sportsmen the country over realize the need for and value of conservation right now.

This goal could be accomplished almost over night if it were possible to persuade every father and sportsman to take the youth in their home or neighborhood and teach them about wildlife—girls as well as boys.

The reasons why this is not being done on a bigger scale is because many of you never thought of the idea, some don't know how to go about it, and others are too indifferent to bother with kids. If only the sportsmen could be made to realize what unexpectedly rich dividends such a small effort can produce, the movement would spread like wildfire over the entire nation.

Let us fathers look at this idea from a purely selfish viewpoint. I can speak from experience because I have three youngsters right at the ages I speak of—from eleven to sixteen years old. All three have joined in my hunting trips, just to go along. My youngest, a daughter, caught trout on the dry fly at the age of four. She was so small she had to cast with both hands. The eldest, at the age four, caught, cleaned and helped cook fish for her baby brother. Can you imagine the thrill I got out of such events?

At what age is a boy or girl old enough to hunt or fish? Or, let's put it another way—at what age can they be trusted to have their own outfits, train their own dogs, tie their own flies and leaders and take care of themselves, afield or on a stream? In other words, when can we fathers begin to reap those dividends?

My son was eleven years old when I presented him with his first bird-dog puppy and he was ten when I bought him his first fishing outfit "all his own." It was not expensive, yet, in all fairness to him, had to be good enough so that he could cast easily with it. The rod had to have good action, the reel and line, balance, so that he would not be working under a handicap. At the age of fourteen he is still using the outfit. It hasn't been injured in any way—which is more than I can say for my own expensive gear. And his 3-year old pointer is in great shape—a fine bird dog.

When he was eleven, I took him up on the Willowemoc with me. It was his first real trout fishing trip on which he was to use his own outfit, cast flies he had tied himself and be a partner with his dad. I doubt if we grown-ups can appreciate what was going on inside his mind and body. Certainly it must have been a great day in his young life—the beginning of a new life for him.

There is no way of telling how a boy feels except by his actions and the look in his face. I had seen that exalted look in his face once before up on the East Delaware, where we had camped. I had rowed the boat while he held the trolling rod. We were after smallmouth bass. A big fish hit the spinner a terrific wallop. The rod was almost jerked out of his hands. He clung desperately to it and turned a half-scared but exultant face toward me. I shall never forget that look so long as I live. Nor the continuously beaming face as six wall-eyes and small-mouths were caught, one after the other, by the excited tyro.

That was the first really big dividend. The next one was paid during that first trout trip. At the stream, I stood by, watching while the eager lad rigged up his tackle. The knots were still troublesome to him but, finally, he was ready to go after the trout.

It was early season—wet fly time on the Willowemoc. So I placed the anxious angler at the head of a pool where he could stand in the riffle and cast down into the most promising waters. Then I turned to fix my own tackle.

Have you heard that threadbare story of the fellow who had never had any desire to play golf but was finally persuaded to try it just once? After a great deal of coaching and advice, he took a very awkward stance, heaved a mighty, if clumsy swipe at the ball and then turned away in disgust. He had made a hole-in-one and claimed there was nothing to the game, it was so easy.

Well, something like that happened to my boy. His younger sister had taken a trout the very first time she ever cast a dry fly. Now, before I even got my rod together, he hooked into a trout on his first cast with his own outfit and a fly he had tied!

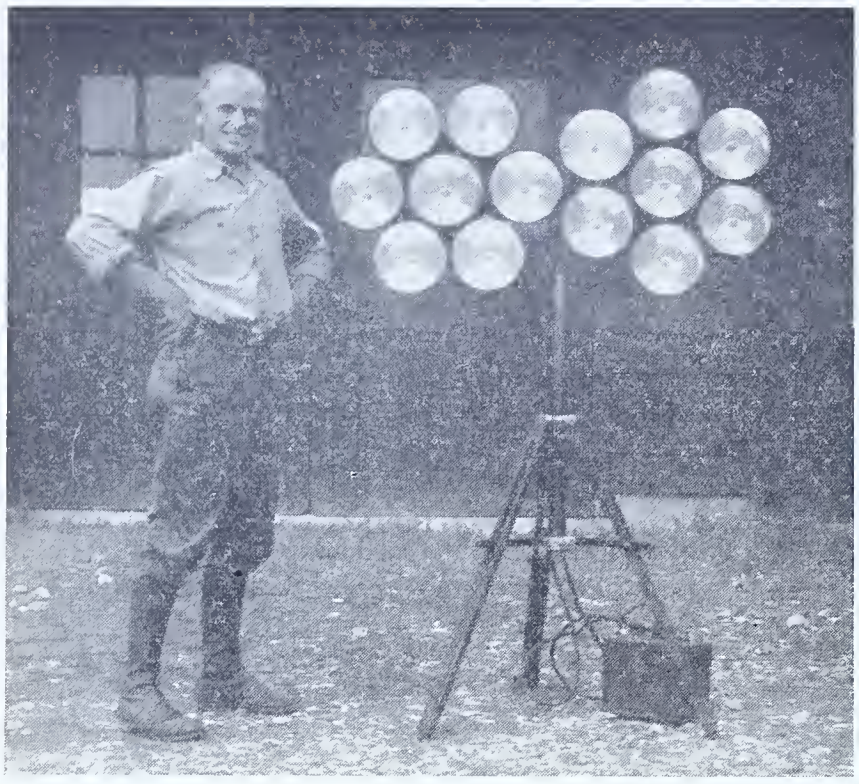
You can imagine the excitement of the next few moments. Fortunately the native trout was well-hooked and nothing could have torn it loose. At last it was landed, petted, inspected and fondled to everybody's heart's content.

No, it wasn't a big fish. Only about eight inches. But it was beautiful as only a boy's first native trout out of such cold water can be. I doubt if he will ever catch another to equal it as it appeared to his eyes that day. It was so important that I had to get out the camera and take a picture of the event. The look on his face is still part of the dividend earned on that trip.

Since then the dividends have been in-

(Continued on page 29)







Robert Ford with his special night-lighting arrangement, left, and the Commission's 17″ telephoto lens, right.

Just Ramblin'

By the Editor

WHEN one pulls in along the shore of a large placid lake in late evening, after sitting behind a wheel with the temperature fluctuating between 99 and 100 degrees, it is just like jumping under a cold shower after a hard day's work in the garden. That is what it felt like to the writer when he pulled in at the Pymatuning Waterfowl Sanctuary on Friday evening August 4, the first lap of a photo reconnaissance trip to determine what possibilities lay behind the use of a powerful telescopic lens he was scheduled to try out on some wildlife, principally shorebirds, the following day.

But as has been my experience on other photographic excursions into that region of unpredictable weather, the morrow offered little in the way of good light to test the lens' possibilities. A light rainfall in the early morning discouraged me, but the overcast sky just opened up long enough to permit some shots of some lesser yellowlegs and a few sandpipers—enough to determine just what it would do in the way of distance and accuracy.

Robert Ford, well-known wildlife photographer from McKeesport, who had adjusted the lens for use with a 16 mm Cine kodak, had arrived the day before and spent the night in his bunk-equipped car. While whiling the hours betwixt breakfast and an anticipated "break" in the weather, the two of us, in company with Raymond Sickles the genial Game Land manager and some of his associates, went into the complicated technical angles of the unique rig-up as well as the powerful lighting arrangement Mr. Ford had invented for securing color movies at night.

If the trip had netted nothing more than the experience gained in that round table discussion it would still have been worth far more than the expense involved, because it opened up an entirely new field for capturing hitherto seemingly impossible pictures of wild creatures in their nocturnal meanderings—pictures that with success will add materially to the education and entertainment of the thousands of people, young and old, who view the Commission's movie films every year. Mr. Ford had already proved the worth of his night-lighting system both in this country and Canada, but it was the writer's first introduction to his inventive genius and the introduction, to say the least, was the harbinger of many pleasant prospects for the future. Both the lens and light are shown to give you some idea of their construction and potentialities.

Dame Weather was good enough to give us about an hour and a half of fairly good light in which to test the lens, then our stomachs and our watches told us that "chow time" had arrived and we hastened to satisfy the inner man. After lunch the sky became overcast again and the low rumble of distant thunder heralded an approaching storm.

Wishing to look over the refuge area if only for a short time, I prevailed upon the keeper to hook up the out-board and take me over part of it in the hope of seeing some waterfowl and perhaps an eagle or two. He was easily persuaded, so we chug-chugged around a bit and sure enough saw some geese, ducks, egrets, numerous great blue herons standing like sentinels upon some out-jutting snags, and above all His Majesty a bald eagle, and an osprey or fish-hawk. I tried a shot or two on the eagle and a winging heron with my slow motion camera (128 frames a second) but won't count my chickens before they're hatched. My 4″ 2.7 lens may not have reached out far enough to pull them in for the kind of picture I wanted, but it was worth a gamble and I took it.

While on the lake I commented on the large number of fish I saw jumping, some of them monsters in the eyes of one who can name among his piscatorial exhibits nothing larger than a 3½ pound smallmouth from the good old Susquehanna, and was astounded to learn that the refuge waters were "polluted" with fish, many of which are netted every year under an agreement by the Fish Commission and stocked in lakes and streams adjacent to areas of large population for the enjoyment of those unable to travel long distances in quest of recreation.

Mr. Sickles told me of the fine wall-eye fishing to be had in the main Pymatuning reservoir, and I hung on every word like a drowning person to a piece of driftwood. Suddenly I realized that I had my fishing license with me and let a few subtle hints fall where I thought they would do the most good. I must have struck flint because in less time than it takes to tell we were enthusiastically talking the possibilities over. However, the heretofore distant rumble assumed more noticeable proportions and we quickly changed our minds about venturing forth on the open waters of Pymatuning, no matter how big or how susceptible to lure its finny hords might prove.

Observing my not too well concealed disappointment Mr. Sickles quickly dispelled it by asking me if I'd like to try a little bullhead angling. Would I? And how! The first thing I knew I was sitting on a concrete abutment of a trestle railroad bridge right outside of Linesville, fishing away for dear life with a borrowed rod and a fat, juicy worm, pulling in one bullhead after the other. But I wasn't alone. Seems like the little creek that flows from the refuge area is a regular hangout of local residents from kids to grandfathers, and I was hard put half the time to find a two-foot square of water which was not alive with bobbers belonging to equally determined anglers.

There must have been twenty-five or thirty either fishing from the bridge, the concrete abutments or the stream banks on a stretch of water not more than 100 feet long and 50 feet wide. Their lines reminded me of a spider web and their bobbers of so many red and white ping-pong balls. I thought all were fishing for bullheads but I had the surprise of my life when I saw a couple of dandy largemouth bass caught here, some enormous wall-eyes caught there, and blue-gills and bullheads yanked out everywhere by the score. There were more of the latter caught because the principal bait was worms. Bait is either rationed or hard to get as only a few were using minnows; but they were having a field day with wall-eyes and bass. I'll never forget that two hours as long as I live, not for the fishing alone but for the side remarks pertinent thereto. All would be quiet for a few moments then someone would shout, "That red bobber has a run," and everyone would forget his line and watch the course of the bobber in question, along with ejaculations such as: "It's a bass. I can tell by the speed it's moving." "No it's a wall-eye. It's moving too slow for a bass." "Don't let it go too far!" "Your bobber's under!" "Give him the works!" No, let him have it awhile!" and so on until the poor fisherman must have felt like a poor fish. Sometimes he "struck oil," sometimes he got his catch almost in only to have it slip off, and sometimes he lifted his prize with a face full of mixed emotions, and "calmly" placed it on his waiting stringer. To make a long story short, I never saw anything like it before. Neither had Field Division Supervisor Hayes T. Englert, who came over late in the afternoon to "sit in" on our photographic conference.

All told it was an evening well spent, not so much because of the fish that were taken but because it brought home to me more forcibly than ever before the joy, good fellowship and recreation that can be tucked away in a man's soul, no matter who he might be, by "just fishin'." And from what I gleaned from a cross-section of conversation with some of them they are just as ardent hunters as they are anglers. Only those who fish and hunt can appreciate my feelings during that short period.

In my enthusiasm at the outset of this little narrative I neglected to mention a side trip on the way to Pymatuning to photograph the original stand of timber which foresight on the part of early



Ducks and fish both vie for bread thrown to them by interested spectators.



Visitors watching the ducks "walking on the fishes backs" below. Prior to Pearl Harbor thousands upon thousands of persons, from almost every state and from many foreign countries, visited the Pymatuning wholly for the purpose of watching the above mentioned demonstration. And today the Commission receives postcards from service men all over the world asking confirmation of some cock-and-bull story told them by a buddy from the Keystone State—a story of ducks walking on fishes backs. The photo below does not do justice to the exhibition because there wasn't sufficient bread thrown into the spillway to make the fish rise in a high pyramid like they often do.

day conservationists preserved for all time in Cook's Forest State Park near Clarion. There in a silence unbroken only by the musical sighing of the wind in the treetops, I wended my way over Longfellow Trail to the famous cathedral of pines and sat for a few moments drinking in their silent grandeur. On the way I was startled for a moment when something dropped on the thick carpet of pine needles which lay like a blanket beneath the majestic trees. I thought for a moment it was rotten limb, but as I peered more intently into the thick undergrowth there suddenly materialized on the trunk of a nearby tree a twitching piney, or red squirrel, his beady eyes inquisitive as he gave me the "once over." I hurriedly adjusted my camera to what I approximated the correct distance and "shot" him, although I realized the light was almost too poor to record the energetic interloper upon my pleasant reflections.

Cook Forest, with its quietitude and maze of trails, its sereneness and sense of security, was the only welcome interlude in an otherwise disguestedly hot and almost unbearable sojourn. . . .

On Sunday morning August 6, after taking some movies and stills of the ducks walking on the fishes backs at the famed Pymatuning spillway, I bid adieu to my good host, the Refuge Keeper and his family and hastened east toward Lycoming County where I had an appointment with a mother hummingbird on a farm not far from the town of Salladasburg. A former Game Protector, W. B. McClarin had tipped me off to the photographic possibilities at this nest just a few days previously, and I decided to include it in my return trip. Enroute to Salladasburg I picked up a soldier just discharged from the hospital after 7 years in the regular army, and a B-12 sailor heading for Bucknell University to complete his pre-medical training. Time and space will not permit me to recount the animated conversation which ensued between there and DuBois where I left the soldier homeward bound to surprise parents and brothers and sisters at Kane, Pa., or further conversation with the young seaman as we drove through the Black Moshannon State Forest out of Philipsburg enroute to Bellefonte and Lock Haven, where he subsequently left us to immediately pick up a ride to Lewisburg. Suffice it to say that the experience of the veteran, coupled with the intense enthusiasm of the sailor-to-be made me swell with pride that I am an American and that I had even the opportunity to "give a hop" to those who had and who will contribute their share to our democratic way of life.

At Lock Haven I stopped to see Game Protector Miles Reeder with the hope of discussing with him more fully plans we had tentatively made for photographing the Northern Raven, a pair of which nests every year on the cliffs not far from Ravensburg, Clinton County. This wary and intelligent bird is very rare in Pennsylvania where Edgar Allen Poe first saw the individuals

(Continued on page 30)

Bandannas are Versatile

By F. J. Floss

Illustrated by Harold Bush

THAT the large type bandanna in both the red and the blue color can be utilized for purposes other than wiping one's nose is evidenced by the many uses experienced outdoor men have put them to in an emergency when afield or astream.

The bandanna's usefulness outdoors is not something new, for its value and aid to sportsmen dates back to early American history. The cowboy of our western plains and deserts used it, not for its decorative effect as most people believe, but to protect his nose and mouth from dust storms, and from the dust raised by the cattles' hooves as he rode herd or on the trails to market.

Logging men of the past decade used it during winter to protect their ears from frostbite when ear muffs were not available. And last but not least, the Boy Scouts wear a bandanna not merely as an ornament, but for a diversity of purposes such as an emergency bandage, a signal flag, a tourniquet, etc.

Thus outdoor men need not bemoan some of the articles they forget, break, or lose on a hunting, fishing, or camping trip because nine times out of ten a bandanna can often be substituted adequately for them. They can be substituted for anything from a belt that will hold up your pants, to caulking for a boat in order to keep you afloat.

The average outdoor man about to embark on a trip into the wilds should carry nc less than two bandannas in his possession at all times, and two more tucked away in his pack basket or duffel bag. Then if he needs them they will not be parked on the shelves of some dry-goods store.

In case of personal injury such as a snake bite or cuts that sever a vein or artery a bandanna may spell the difference between life and death. It can be applied as a tourniquet by looping it around the arm or leg and tying the ends together so a stick can be inserted and twisted to stop the flow of blood or spread of poison until the wound can be properly treated. Sure, other articles of clothing can be torn up into strips that will serve the same purpose, but a man needs all the clothing he has to keep warm, especially when traveling light or



A wet bandanna tied over your face while fire fighting will keep you from choking to death.



when the weather is cold, when weak from such an injury.

For aches and pains a cold or hot compress, depending on the remedial measures necessary, made from a bandanna will give relief from headaches, sinus trouble, bee and nettle stings, and mosquito bites. If a banadage is needed for the head, hand, arm, leg or foot it will serve in that capacity too. If you sprain an ankle it will serve as a triangular bandage to ease the pain until you get back to camp.

When gunning where there is a large concentration of hunters you can use two bandannas for protection by sewing a red one on the back of your hunting coat, and by taking another one, splitting it, and sewing it on each side of the front of your coat. Its vivid color will serve to warn other hunters that behind it is a man, not a four-footed animal.

A red bandanna can also be sewn on a cap or hat for protection. This precaution is a "must" when gunning for woodchucks because too often hunters are mistaken for groundhogs while partly concealed in the brush or high grass near their dens waiting for one to stick its head out. Some safety-minded 'chuck hunters have developed the habit of placing a red 'kerchief high on the twig of a bush close to where they are hidden as a protective measure. If this practice were adopted universally among whistle-pig hunters, it would save many lives.

Around the camp, a bandanna tucked in over the belt and let hang down will serve as an apron, keeping grease and other bits of food from staining one's breeches. Left-over food during summer months can be covered with it, thus cheating flies and other insects out of a meal at your expense. It will also serve as a hand or dish towel, a wash or dish rag, a coffee bag or a table cloth.

On the trail a neat bag for carrying fruit, mushrooms, berries, etc., can be improvised from a bandanna by tying the four corners together so that they overlap each other. Hoboes use this improvised method to carry all their worldly goods, hanging it on the end of a stick slung over their shoulders. And the timid man who has qualms about drinking directly out of a lake or stream, need have no fear of waterworms or of dirt getting into his mouth if he places a clean bandanna over his mouth and sucks the water through it.

Two bandannas will help you find game you have downed at long range. Tie one at the point you shot from, then walk over to where you thought your game fell. If you don't find it there you must have miscalculated. So, tie a second bandanna where you thought it fell, retrace your steps to the first bandanna, then look across at the second and see how far off you were from where you first marked your game down. Next, go back to the second and move right or left from it. If you don't find it then, start out by making an ever-widening circle around the spot until you find your quarry or a blood trail. This system localizes your hunt and gives you a point to work from covering a small area, where on the other hand you would have a lot of territory to cover and never know just where you were.

A bandanna can also be used in many ways to protect the head. For instance if you lose your hat or cap you can substitute a bandanna by tying it over your head in the following manner: first, lay it flat over the top of the head, then take the two corners that are in front and pull them back over your ears and overlap and tie the part at the back of your head. Tied this way it also makes a good bathing cap that will keep that troublesome hair out of your eyes. On bright sunny days it will keep the back of your neck from becoming sun-burned. If you fold it over and over until it is only about two inches wide, then tie around the head, just about the top of your eye-lashes, you will have a sweat-

(Continued on page 30)



Some safety minded groundhog hunters place a red 'kerchief high on a twig near where they are hidden.

What Is the N. R. A.?



N.R.A. encourages safe rifle and pistol target shooting.

Q. Just what is the N.R.A.?

A. The NATIONAL RIFLE ASSOCIATION OF AMERICA is a civilian organization of U. S. Citizens. It is owned and operated by its members that have been brought together by the desire to encourage better marksmanship through organized target shooting. Thus the N.R.A. is recognized as the top authority in this type of civilian recreation and sport.

It is not a "trade" association representing manufacturers or dealers of shooting supplies or equipment.

Q. How old is the Association?

A. So far as known, it is one of the oldest national organizations of its kind in America. The N.R.A. was chartered in the year of 1871 as a non-profit corporation under the State laws of New York.

Q. Who runs the N.R.A.?

A. The affairs of The N.R.A. are governed by a Board of Directors, who are elected by and from the Life Members. The Board in turn selects an Executive Committee from their Directors. This group meets at frequent intervals to run the N.R.A. All Officers and Directors serve without pay, except the Executive Vice-President, the Secretary-Treasurer and the Assistant Secretary, who are full-time executives. Serving under these Officers is a staff of trained personnel.

Control of the N.R.A. and its policies therefore, is in the hands of its individual members and affiliated clubs, since any member has the right of the floor at Association meetings and each Life Member has the right to vote.

Q. Where does the N.R.A. get its funds?

A. The funds are supplied by the dues of members and member clubs. Additional income is had from advertising of *The American Rifleman* (Official magazine of the Asscciation), sales of manuals and books, competition fees, and from capital investments.

The N.R.A. does not get financial support from either the Government or any organization of manufacturers or dealers in arms and supplies.

Q. What does The N.R.A. do?

A. During peace time The N.R.A. encourages safe rifle and pistol target shooting as a recreational activity and competitive sport for Juniors and Adults. This is done by competitive matches, by helping to form local rifle and pistol clubs, by publishing the exclusive firearms and their use magazine known as *The American Rifleman*, by publishing various competitive and technical manuals, by providing expert advice to the shooter members, and by operating systems of classifying the individual skill of tournament shooters.

The chief war time activity of The N.R.A. and its affiliated clubs is preinduction training in marksmanship for young men. This is done through N.R.A. Approved and Registered Smallarms Firing Schools. These are operated under a uniform nation-wide plan designed to prepare young men in marksmanship before their induction to military service.

The N.R.A. has supplied Instructors from among prominent shooters to branches of the Armed Service. Reloaders have been registered with the Association to make their services available to local industrial guard forces, etc. Much technical advice has been supplied by the Association to various military organizations and governmental agencies.

The N.R.A. has aided in the collection of materials owned by members and desired by the Armed Forces.

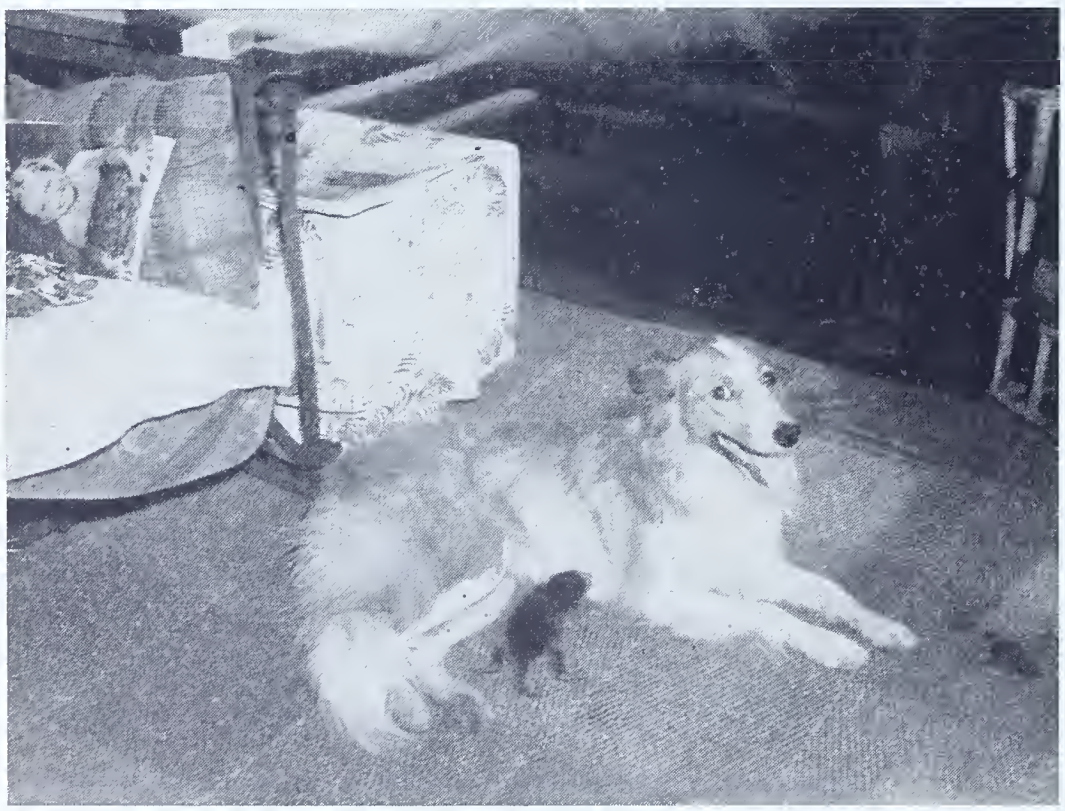
Thus by encouraging a peace time shooting activity the constant demand for small arms, ammunition and other shooting supplies allows the war time conversion and expansion of commercial arms companies to maintain maximum war production. Many men have prepared themselves to serve as instructors and coaches in the Armed Services. Technical data, of use to our Armed Forces, has been accumulated and made available to them.

Q. What's the connection between N.R.A. and Office of the Director of Civilian Marksmanship?

A. Since the aims of both are similar the cooperation is very close. They are separate organizations. The N.R.A. is a civilian group

(Continued on page 31)





Photos by Leo A. Luttringer, Jr.

When Mrs. Lois E. Christen, Mt. Gretna, Lebanon County, went for a walk one July morning with her two Dachshunds, one of the dogs found a mother raccoon in a hollow tree on the ground. When the party investigated Mrs. 'Coon ran into the woods, leaving three babies in the nest. On the morrow Mrs. Christen went back to the tree but only one youngster was in the nest. The following day the mother had still not returned for her remaining offspring so Mrs. Christen took it home, reported the incident to Game Protector Raymond Holtzapple, and turned it over to a neighbor's collie who foster mothered it along with her seven puppies. Four weeks afterwards the little fellow's eyes opened.

Wrens often nest in unusual places, such as a fishing creel hung on a back porch or a pocket of an old coat.

Albinism is common among most birds and animals. It is not unusual to see a white groundhog, an albino ringneck, a partly albino crow, etc.

The busy man has few idle visitors; to the boiling pot the flies come not.

Laziness travels so slowly that poverty soon overtakes him.

Beware of little expenses, a small leak will sink a great ship.

BLACKBIRDS GUILTY

Has *your* Victory garden been robbed?

Well, don't blame it all on Br'er Rabbit.

The purple grackle (blackbird) likes Victory gardens too. In fact he likes them so well he has practically spent the summer in them, from the time the first peas were ready to harvest. He and his sisters, brothers, children and cousins have grown fat and bold on peas, tomatoes and sweet corn, making short work of the Victory gardener's fond hopes of a good crop.

The birds have grown so numerous and pestiferous in recent years that the Commission removed protection from them, hoping that the hunters would do their part to decrease the current population.

There are three good reasons why hunters should go gunning for blackbirds this year.

First, there is the sport of hunting. Hunting blackbirds is just as much fun as hunting quail or any other game birds. Blackbirds are small and quick. Besides you don't have to go far to find them.

Second, save the Victory garden. Food is scarce. It is vital that we raise all the food we can.

Last but not least, "four and twenty backbirds baked in a pie" is a more tasty dish than most persons suppose. Try it, hunters. Shoot the blackbird, and "kill three birds with one stone."

SENTENCED

In pronouncing sentence on an aged Adams County resident recently for shooting a 12 year old boy in mistake for a "fish crane" Judge W. C. Sheeley of Gettysburg said to the defendant "The court is satisfied that you intended nothing wrong and that the shooting was purely accidental. The purpose of the law is to prevent others from making the same mistake."

The defendant, by the way, was sentenced to serve two years in the Adams County Jail and to pay $500 to the parents of his young victim.

SEALS SAFEGUARDED

When Japanese forces succeeded in invading the Aleutians in the spring of 1942 game men in the United States Fish and Wildlife Service and the Alaska Game Commission had little hope the small sea otter herds in Alaskan waters would survive the war.

There was little reason to hope that so shy and wary an animal would endure the occupation of the Aleutians by armed forces, plus all the terrifying noise and activities of modern war. Whatever the Japs did to the herd, wildlife authorities feared the end of the Aleutian campaign would see the sea otter listed as "missing in action."

But this summer good news has come concerning the otter herd.

After American forces wiped out the Japs on Attu and drove them from Kiska without a battle, a little more than year ago, the United States Fish and Wildlife Service dispatched a trained game man to the Aleutians to learn, if possible, what a

AN APOLOGY

In the August issue, under the picture of three members of the Civil Air Patrol and a Stinson 105, we stated that Maurice Sherman used this plane to drop salt blocks in isolated sections of Division E in an effort to keep the deer from coming to the railroad to seek salt from refrigerator cars.

This spotlight position rightfully belongs to John Lohmann, who has used his personal funds for hiring the plane to do this service for "backwoods" deer.

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year of warfare had done to the sea otters.

The results of that survey have recently been released. The federal "census taker" counted more than 3,100 otters on Amchitka alone and reported that smaller herds in other sections of the Aleutian chain showed evidence of a slight but general increase.

Ruffed grouse have hit the low point of a cyclic decline in Minnesota, according to censuses conducted in the spring by game biologists of that State. The population appears to be at the same level as last year, hence next year's figures are expected to show an increase.

The grouse die-off cycle is usually completed in eight to ten years. Fifteen years of research has failed to clarify completely the cause of the cycle. although it is believed that several diseases, parasites and weather conditions are contributing factors.

Over five million dollars, the largest fur income in Minnesota's history, went into the pockets of that State's trappers in 1943. During the past five years the reported take of pelts has increased from 234,000 in 1939 to 2,174,000 in 1943. The fur trade must now be reckoned an important Minnesota industry, with 30,000 to 40,000 licensed trappers plus an unknown number of farmers and school boys who trap, license free, on their own land.

The muskrat take alone has reached 1,957,000 animals, with a cash value of approximately $3,522,000. Mink come next with $806,000.

NOTES FROM THE FIELD

"On the night of July 15, while looking after a complaint that someone was jacklighting deer I counted in the fields and along the roads, sixty-one deer, twenty-six rabbits, two raccoons and eleven house cats. Needless to say the cats are no more." —Game Protector W. C. Achey, Weatherly.

"Patrolling along Catawissa Mountain recently, I noticed a number of crows quite concerned about something in the woods. Discovered it to be a great horned owl sitting on the limb of a dead tree. I crippled the owl with a couple of shots from my rifle, the bird dropping one wing but still sitting fast. That seemed to be the signal for the crows to increase their dive bombing. I saw my opportunity to get in some good shooting, so gathered up all shotgun shells available and moved in on the fracas. I did not even conceal myself after the first couple shots—the crows paid no attention to me. The shooting was all that could be desired for sometime, and the black fellows still kept on coming, from somewhere. Finally the owl seemed about to give up the ghost and toppled forward but still hung on to the limb, up-side down. Then the crows really did go to town in their excitement. The owl hung on for a few moments and then dropped off. There seemed to be one caw of victory and the crows disappeared in seconds. I gathered up 37 dead and crippled crows, and no doubt some that got away weren't feeling so good. I've frequently observed that horned owls can take a lot of punishment and absorb a lot of lead. This one was no exception. His left wing was nearly torn off by the .25 hollow point bullet."—Game Protector Mark L. Hagenbuch, Bloomsburg.

"On the evening of July 13, Robert Heffner and his father, Mount Vernon Avenue, Huntingdon, were driving their car about one-half mile distant from the Division Office, Huntingdon, when they saw what they thought to be a gray fox carrying a rabbit. They drove fast and scared the fox and it dropped what it had in its mouth. Upon examination they found that the fox had been carrying two nearly grown rabbits which had been killed very recently—they were still warm. When they stopped to examine these rabbits, the fox went up a hill a short distance away and barked at them just like a dog. Mr. Heffner happened to have a little wire in the car and he made a snare and baited it with one of these rabbits. The next morning he went to look at the snare and to dismantle it in case he had not caught the fox. He was very much surprised to find that he had snared the fox and that it was a young female, silver gray. From all indications, she had a litter of pups in that vicinity somewhere, and was no doubt carrying the young rabbits to them. This is the second silver gray fox taken in Huntingdon County in the last couple of years."—Field Division Supervisor Wm. J. Davis, Huntingdon.

"While I was vacationing at my home in Perry County I observed a blacksnake which had just been killed by one Albert Snyder. Noting that the reptile appeared to be extra large in diameter, we cut it open and found that it had just recently swallowed 4 young grouse. The snake measured 6′ 6″ in length."—Game Protector Lester E. Sheaffer, Uniontown.

"An experience I had recently on a vacation trip proved to me definitely that persons should not be permitted to keep wild animals. My father and I were fishing in Penns Creek near Selinsgrove on July 4. I was standing in the water a short distance from shore and my father was below me. Looking around I saw a gray squirrel coming down the bank. It appeared very tame. Calling to my father, I pointed to the squirrel. I was turned sideways to it and didn't see it leap on my arm until I felt its teeth and looked to see it clinging to my wrist. It took two attempts to dislodge it. Later the same squirrel attacked my father by jumping up on his boots and legs. I received a nasty gash on the forearm for my trouble. I later talked to a farmer near the stream and he told me that a neighbor had found a young squirrel and had raised it, but that it had gotten mean and they had turned it loose. No doubt this was the same squirrel. My father wrote to me the following week that this squirrel was still there and had attacked him again. Had a child come along at the time you can readily see how it might

(Turn page)



The above photo is simply for the record, and depicts the officers of Division "C" back in the early days. Know any of the boys?



Photo courtesy Grand Rapids (Mich.) Press.

Here's a once-in-a-lifetime wildlife action picture, caught as an enraged catbird swooped down to attack and drive off a prowling garter snake near the bird's nesting area. The photographer was Dr. Miles D. Pirnie, director of the Michigan State college W. K. Kellogg bird sanctuary on Gull lake between Battle Creek and Kalamazoo.

NOTES FROM THE FIELD

seriously be wounded by the vicious little animal.

"Many people feel badly and even antagonistic when we take away from them wild creatures which they have picked up, but from now on I will have a scar to show them, when I tell them how serious a situation might arise."—Game Protector Clyde E. Laubach, Clearfield.

"Started mowing on roads and some of my refuge lines during the last half of the month. There seems to be quite a lot of game in this section. We saw three flocks of young grouse while mowing lines on Refuge 79A.

"While mowing on 26A I saw the first pair of pileated woodpeckers I have seen since coming to this section of the State."—Game Protector Jack L. DeLong, Portage.

"In preparing traps for foxes I have learned of a method of smoking them instead of boiling as we have been doing. This new method was taught to me by the Indians in Northern Ontario, while I was there on a fishing trip this season. I have built a small smoke house that will hold all of the trapping equipment to be smoked at the same time. This system, if done correctly, will prevent rust and also makes a good storage place for the traps while not in use."—Game Protector Elmer L. Pilling, Philipsburg.

"The woodcutters say that the beechnut crop will be fair."—Game Protector Ernest E. Hunsinger, Conrad.

"While Deputy Game Protector Ralph Kline and men were mowing refuge line on State Game Lands No. 83 they mowed past a yellow-jacket's nest. About a half hour later they walked back past the nest to get their lunch. Noticing it was dug out, they investigated and found red fox tracks in the freshly dug ground. The fox had apparently made a meal of it.

"Deputy Game Protector Charles Snelbaker, Mr. Anderson and Mr. Diehl report seeing an albino gray squirrel along the Conewago Creek in Conewago Township:"—Game Protector E. J. Turner, York.

"Japanese beetles were observed working on wild grapevines on July 26 along the boundary line of Game Lands No. 127."—Game Protector Lewis H. Estep, Berwick.

"Forest Ranger Gilbert reported a fawn in Bear Valley that was acting queer. Upon investigation we found that it was blind in both eyes. We shot and buried it.

"We will have a fair crop of nuts of most kinds in this section this winter."—Game Protector D. H. Franklin, Upper Strasburg.

"The feed seems scarce in this section, with the exception of wildgrapes, and they are plentiful."—Game Protector R. F. Turley, Martinsburg.

"The young grouse are showing up much better than they did early in the season. They seemed very scarce early this summer, but lately I have observed several nice coveys. Another thing that seems more plentiful this year is the rattlesnake. We have killed more—and much closer to my house—this year than before. I have had reports of many others being killed, some of them in places where they have not been seen for the past few years.

"I don't believe our winter supply of food is going to be as plentiful as we had anticipated. The acorn crop is not very heavy. Beechnuts are also scarce. I believe that late frost did much damage to them."—Game Protector Clyde W. Decker, Clearfield.

"The last time I was in the turkey propagation area, there were still some old birds there. I've heard of some turkeys that were hatched several miles from the area. I have run into quite a number of grouse in the last two weeks, but the coveys are small—from two to six birds. Food conditions do not look nearly as good as they did some time ago. Everything is drying up."—Game Protector Edward Shaw, Leeper.

"It looks as if we are going to have a much better season for game of all kinds than we had last year.

"Every day I see a number of flocks of ringneck pheasants. The largest flock included 17 birds, but the average flock is 10 birds.

"Rabbits and squirrels seem to be very plentiful and I have seen a few quail. Woodchucks are also very plentiful in every section that I have visited and fur-bearing animals seem to be on the increase.

"Hickory nuts are not as plentiful as last year in this section."—Game Protector Clarence H. Mumbauer, Perkasie.

"Rabbits have made a wonderful comback this summer. It seems to me they are showing up more plentiful than any time in the past four years.

"What looked like a bumper crop of apples this spring doesn't look so good now. Many trees that were well loaded four weeks ago are about bare of fruit. Something is causing it to drop long before it should."—Game Protector Cecil D. Hancock, Port Allegany.

"Despite the inclement weather during the spring hatching season, wild turkey hens are showing up with their young as usual. The size of the brood seems to be very good as to number. Feed conditions seem to be spotty."—Game Protector Ross G. Metz, Petersburg.

"I shot one porcupine and one Cooper's hawk during the month.

"The grouse seem to be very scarce in this locality but the reports coming in now seem a little better than at the first part of summer. I have seen only small numbers of birds, but others tell of coveys of from four to fourteen birds. Most of the birds seem to be on hilltops, near big rocks.

"The game food in this section looks very favorable this year. There are plenty of acorns and hickory nuts. Some ridges have a few beechnuts. There are plenty of berries but only a light crop of apples."—Game Protector George H. Burdick, Tidioute.

"Field crops are needing rain very badly. Soil moisture is very low. So is the water level in the lower lake. This will be an advantage to shore-birds, which are beginning their fall migration, by creating mud flats and sand bars.

"The fishing in Pymatuning has taken a decided upswing by the catching of a record number of wall-eyed pike and large silver catfish.

"Thousands of blackbirds roost in the trees surrounding headquarters almost every night. These birds feed in large flocks and can consume much grain. They practically took all the oats crop before I got it harvested. They also sit on the ears of corn and peck at the ends and eat some of the kernels on the ear while it is still in the milk stage. This results in the husk being shredded and loosened on the end of the ears, and moisture gets in and rots about one third of the ear.—Game Protector Raymond M. Sickles, Linesville.

"Recently I picked up a young raccoon from a family which had taken it from the woods when quite young. It was very tame and would follow one about as would a very playful dog. Late one evening I drove into a deep woods where there were many large den trees and put it down at the base of one of them. It played around for some time but would not at any time go out of sight of me, so I decided to return to my car and leave it. I hurried back to the car, but just as I was backing out the old road, there came Mr. Raccoon running toward me as fast as it could travel. I got out, opened the trunk, and put the creature back in. Then I took it to an even more remote section along the Shenango River and after carrying it quite a distance from the car, ran back and finally succeeded in getting away from the little fellow.

"I believe that the taking of young animals or birds from their natural habitat should be discouraged in every way possible. One's feeling, both for the animal in question and for those responsible for removing it from the wild, can only be expressed after in incident such as this."—H. C. Sutherland, Acting District Game Protector, Jamestown.

"On Sunday July 9, I left headquarters at 3:00 p. m. to investigate the cause of some smoke on Sideling Hill Mountain west of Hustontown. There I found a small forest fire under control by a local fire warden. This was the first time, in all my experience, I had ever seen a forest fire in this section at this season of the year.

"On Monday July 24 while driving along a road through Game Lands No. 67 accompanied by Protector Baumgardner, we saw a deer. We both remarked as to its size and general appearance. We thought that it was a good specimen of a yearling, but as we approached we were amazed to discover that it was a fawn of this season. The usual spots were very plain at close range.

"While mowing roads and refuge line on Game Lands No. 67 we found only three rattlesnakes, but we did tangle with eleven yellowjackets and two hornet nests. One of my crew was stung several times each day through the week of July 24."—Game Protector William Lane, Hustontown.

"I have observed quite a few broods of young ducks this summer. Almost every beaver dam has furnished a home for at least one pair of ducks and their young, and sometimes many pairs. Wood ducks and black ducks are the most prevalent.

"Due to the complaints of farmers that beavers are flooding their lands it has been necessary to trap the animals and destroy the dams. All the dams that I destroyed had furnished a place for ducks and there were an abundance of muskrats and 'coon signs at these dams. Sometimes a little tour of the dam with the farmer to show him the benefit he might derive from fur-trapping and the sport he can have hunting the site will influence him to let the beavers remain.

"There is going to be a very good crop of butternuts this year.

"A mother bear and a cub were observed on Game Lands No. 133. This is a rare occurrence in this section."—Game Protector Elmer Simpson, Cambridge Springs.

"On August 3, I discovered a quail nest along a dirt road leading from a black top road to a farmhouse. While trying to take a picture of the hen on the nest I noticed that her bill had been clipped. Closer observation proved that she was a banded hen released on June 7, 1944. The nest was located 600 yards south of the point at which the bird was released. The nest site had been badly exposed, as a township road maintenance crew had cut the grass along the road. I covered it as best I could with dead grass, and the hen seemed satisfied, as she returned to continue incubation of her 12 eggs. Her mate, an unbanded cock, was seen nearby several times on subsequent observations. On August 11, I noticed two broken eggs in the nest together with several quail feathers. The hen had been killed by some predator as she incubated. Her mate did not take over the nest and continue incubation, as they sometimes do.

"Bobby Bishop, of Ebenezer, Lebanon County, went bass fishing midnight July 1 and quit fishing at 6 a. m. so he could be at a certain farm at the opening of the groundhog season. He got to his place at 7 a. m., and sat at a bush waiting for Mr. Hog to show up. At 5:45 p. m. the farmer's son saw him sitting there and ran for his father thinking he was shot. The farmer found the lad. He had slept in a hot sun from 7 a. m. until 6 p. m., thus ending the opening day of the groundhog season."—Game Protector Raymond Holtzapple, Mt. Gretna.





Photos by Leo A. Luttringer, Jr.

Buck in the "velvet" at Harrisburg Zoo, and two fawns picked up in early summer in different parts of the state and also turned over to the zoo

Comparatively few persons are familiar with the intricate technical problems of game land management or the persons who administer these problems in the various field divisions of the Game Commission. At the present there are four Game Land Technicians, as they are called. All have been helping considerably to promote the Commission's field work, and their duties will assume greater responsibility as time goes on. Two of these field representatives, who work under the guidanee of the Field Division Supervisors, are depicted below; the other two will bc depicted next month.



KNOW THEM BETTER

The oldest Technician in point of service and field experience is John J. Slautterback, who began his services back in 1915 as Game Protector in charge of Mifflin, Juniata and Snyder Counties. In those days he assisted "Woody" Kelly and other old timers in special enforcement work, later succeeding "Woody" as Supeintendent of Game Refuges.

In 1915 he was appointed Division Supervisor of Division "D", and nine years later was transferred to the Harrisburg office as Chief of the Bureau of Predatory Animals. In 1928 he was appointed Executive Secretary and served until July 1, 1931. He was the only employee, aside from Seth Gordon, the present Executive Director, ever to be appointed to that position from the ranks.

From 1934 until 1939 he was with the New York Conservation Department as Superintendent of Operations and Wildlife Technician. He returned to Pennsylvania that same year as a Game Land Technician in Division "B".

Mr. Slautterback was born on a farm in Perry County where he ran his first trap line at the age of 8 and killed his first wild turkey when 14 with a single barreled muzzle loader. Hunting, fishing, trapping and trap shooting have been, still are, and always will be his favorite sports.

NOTICE

A pocket guide listing accommodations for hunters and the names and addresses of guides in Pennsylvania can be obtained free of charge from the Department of Commerce, Capitol, Harrisburg, Pa. Don't go for the limit. Remember the servicemen who're coming home.

Mr. Hunter: Please be a sportsman and keep your dogs out of soy bean fields, especially during the gunning season. Even while training, farmers don't like to have dogs running through their soy beans. To respect this wish is little enough in return for the privileges the landowner gives you.

BOOK REVIEWS

The Illustrated Encyclopedia of American Birds—By Leon A. Hausman, containing 560 pages and more than 700 illustrations by Jacob Bates Abbott. Published by Garden City Publishing Co., 14 West 49th St., New York, 20, N. Y. for $1.98.

This book lists in alphabetical sequence the 1,422 species and sub-species included in the American Ornithologists' Union's Check-list of American Birds and describes each species as to size, recognition marks, outline of distribution, song, behavior, etc. Sub-species are listed more briefly. Check-list of bird names is also contained in systematic order, an index of scientific names of families, a register of state birds, and a bibliography of books useful to the layman for bird study. Introduction largely devoted to directions for using the book.

Poisonous Snakes of the Eastern United States, With First-Aid Guide—By Harry T. Davis and C. S. Brimley, contains 16 pages and is illustrated with color plates. It is issued by the North Carolina State Museum and is available from the North Carolina Bird Club at Raleigh, N. C. for 10c per copy.

A handy reference book on poisonous snakes of the Eastern United States, prepared for the use of hunters, fishermen, farmers and other outdoorsmen. Only eight of the 60 snakes occurring in this area are classed as dangerous and poisonous to men: seven members of the pit viper group—highland moccasin, water moccasin, massasauga, pigmy rattlesnake, diamond-back rattlesnake, banded rattlesnake and canebrake rattlesnake—and one member of the cobra family, the little known coral snake. The book describes the physical appearance, behavior, habitat and locale, size, food and reproduction habits of these reptiles. A chapter on snake bites and first-aid is also included.





KNOW THEM BETTER

Mr. John B. Sedam first entered the Commission's services in April 1936 as a Game Land Technician in the Bureau of Refuges and Lands in Harrisburg. After helping introduce the technical portion of the land management program, he was transferred to Huntingdon County where he assumed the actual field responsibilities in Divisions "D" and "G".

Previous to his employment with the Commonwealth, he had the positions of Supervisor of Thrift Gardens in Delaware County; Acting Assistant State Thrift Garden Supervisor, Harrisburg; and Rural Resettlement Supervisor of the Federal Resettlement Administration from which he resigned to enter the employ of the Game Commission.

He obtained his grammar and high school education in Muncy and Montoursville, Pa. After a year and summer at the Mont Alto Forestry School, he went to the Pennsylvania State College, and was graduated in 1934 with a Bachelor of Science degree in Horticulture, majoring in Nursery Practice and Plant Materials.

Although he was actively engaged in baseball, basketball and track during high school days, soccer and baseball at Mont Alto Forestry School, his first interests were always hunting, fishing, and trapping.

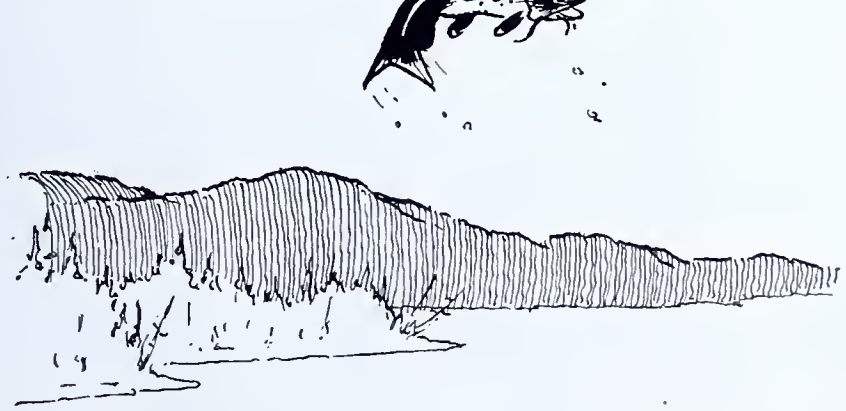
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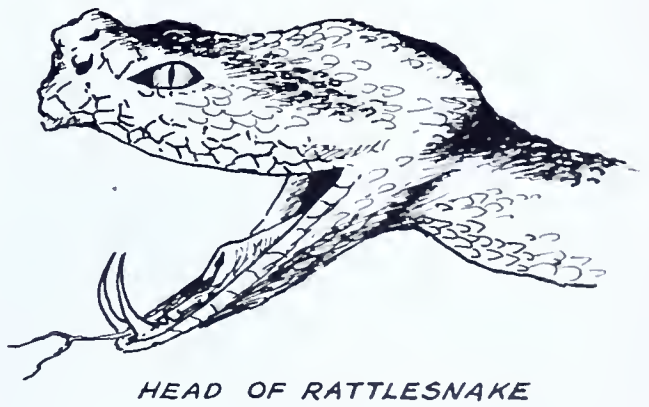
For all seasons, bag limits, and shooting hours see back cover. Sign your hunting license; hunt safely; wear red; respect the landowner; report your game kill promptly. Thanks.

WELL- WHAT'S WRONG ?









HEAD OF RATTLESNAKE

Answers on Page 32

WITH THOSE IN THE SERVICE



Herbert P. Kaufman, son of Mr. George H. Kaufman, Harrisburg, recently commissioned a Second Lieutenant in the Air Corps by General Dwight D. Eisenhower, Theatre Commander, is shown above being sworn in by Lieutenant Roberts P. Johnson, Jr., of Winfield, La. Lieutenant Kaufman was an Acting Game Land Technician with headquarters at Oil City.

"First and foremost is the deer incident. Dad, I don't know how long you've been hunting for them, but I must inform you that I already have gotten my first one. A three-pronged, 250 lb. buck. He was tremendous and dressed down to about 150 lbs.

"This is the story. We were coming back from a trip last Sunday and were going through the channel pass when off the port bow one of the boys sighted something in the water. We went over and it was a set of horns sticking out of the water. The gunners mate shot at 200 yards and clipped his left antler off at the base of it. He was stunned and we ran in between him and the shore, forced him in the direction of the open sea and then rammed him with the boat. Then we got a lasso around his neck, drowned him and hauled him aboard. We gutted him and cut his throat and hung him over the stern 'till we got back to base. That's the story. Believe me he was the best eating of any deer I ever tasted. Cut him with a fork and not the strong taste venison usually has. The base had good fresh meat for a change."—Lt. (j.g.) R. W. Campbell, Address Unknown.

Ensign William D. Lawson described a water spout in a recent letter:

"It was a typical tropical afternoon about 3:00 p.m.; the air was sultry and still. As usual the sky was tumbling over with the great tattle-tale gray cumulus clouds—meaning that any day it might rain. The sun was white heat itself. Out of nowhere a low black bulk of nimbus appeared and began forming a blunt cone—gradually the tip descended to the water less than half a mile away, like a shadow reaching downward. You could see the disturbed currents in this projection as it extended down to the water, which was an inky black area in the shadow of this cloud surrounded by the chlorine green of the rest of the ocean. As the tip of the cone touched the water, it foretold its hollow structure by a point of light and gradually that point spread to about an acre with the appearance of streaming caused by the turbulent whirl. Thus the water spout began. It lasted about half an hour with little apparent lateral motion—just a black doughnut in a green sea. These sights are profound and possess a wild beauty that defies one to describe."

"At the present time I'm waiting to go to a more isolated spot and as you will notice that address will be different than the one I sent to you several weeks ago.

"This is a barren country all right, but not as bad as one might expect. Fishing appears to show more results than hunting at present, but my new location should prove more favorable for both. I caught eight trout last week on a very crude rig. The hardest part is finding a substitute pole in a country without trees. The trout resembled closely our native brook trout, and were all small. Beef fat from the mess hall proved a good bait. I came too late for the salmon run, but cod are still biting in the fjord. They really catch some nice ones.

"Bird life consists mainly of ravens and a sparrow I haven't been able to identify. A third member calls like a flicker and is about the same size. This, however, is a wary bird and I really haven't had a good look at it. I've had reports of ptarmigan but haven't seen one myself.

"Animal life on the entire island is also limited. I've read most of the available material about the subject in the local library, and arctic hares and foxes, caribou, musk ox, polar bears, and seals about complete the list. I hope to get a few specimens before I return, and if postal regulations permit, I will send them to Dr. English at State College.

"In my present location, trips in the field have been limited because of the necessity of climbing 1500 foot mountains, mostly straight up, before starting to get anywhere. I understand things will be different where I'm going.

"In this locality alone there are about





Left, Pvt. W. L. R. Drake, Div. of Public Information, recently home on furlough; John Buck and Perry "Wink" Keiser both from the Loyalsock State Game Farm; and Game Protector James A. Brown, Lehigh County, recently commissioned a Lieutenant (j.g.) in the Navy. Good luck fellows.





six species of flowers in bloom. They are really beautiful. Only the dandelion is familiar. The other vegetation resembles the low shrubs of the barrens. I haven't been able to find any descriptions of the flora of this region, and probably won't get too far in this direction unless I do. I really intend to do some field work as soon as I am located."—Cpl. J. D. Beule, 8th Weather Sq., APO 859, New York.

". . . Here's an amusing incident that took place on the front a couple of days ago: A Yank medico was up tending a wounded soldier when a German medic came in sight and started fixing up a German soldier lying wounded only a few yards away. They started talking, as the German officer could speak English; the conversation veered to politics and they began to argue about various political points of view until the conversation got so heated that they came to blows. Had a fist fight right on the front line. The Yank knocked the Jerry down and carried his wounded man back. . . .

"Here's another funny one that occurred at a little town which changed hands frequently—the Yanks would take it from the Germans in the daytime and at night the Germans would infiltrate and retake it. This happened continuously day by day and night after night. Finally the Yanks began leaving cigarettes for the Germans and in return the Jerries left bottles of wine for the Yanks. What a war!"—Lt. Jackson M. Abbott, Combat Engineer, Normandy.

"This year has brought many more adventures and excitement than last year. It is much wilder and more rugged here than the interior. Dad, you said you'd like to hunt the ptarmigan here—I say this—to heck with the ptarmigan, there is too much other game here—big game. We often see caribou and shoot them when we are short of fresh meat. I got one myself—it was an enormous buck, much bigger than any of those deer in Pennsylvania. The meat is delicious. We had one huge Kodiak bear near camp in Chiquiagak Bay. One evening I went out with a couple of boys from the navy boat. We split up and I came over a hill and looked down onto a grassy flat—there less than two hundred feet away were four huge Kodiak bears grazing on the grass. I stood still there just watching them, too amazed to do much. These monsters were much bigger than any horse and made any bears I saw in zoos look like midgets. I had my .30-30 rifle and couldn't have missed at that range, but I didn't shoot. The other two boys then came up to me and I calmly said—'Look over there—four huge bears.' They looked and by this time the bears caught our scent. One reared up on his hind legs and looked around, sniffing the air. That was enough for us—we took off and I ran about a hundred yards then stopped. It would have been no use to run farther. We all had rifles (heavy caliber) but if those four monsters had charged us we wouldn't have had a prayer. One fellow circled back and found that the bears were splitting up and running away so he fired at them, but missed. Anyhow it's an experience I can still see and it was well worth it. These bears are considered the most ferocious animals in the world if they charge, but so far all I've seen ran away as fast as they could. Of course there always may be the one that won't run.

"As for other wildlife—there is plenty. There are foxes, wolves, bald eagles, hawks (including many duck hawks), ducks. ptarmigan, shorebirds, seals, whales, porpoise, many fish, caribou and bears. By the way, there are bear trails and dirt all over the land; and tracks are seen on every beach. I found about a dozen bear stools in one small spot—apparently their 'outhouse.' We got a seal one day and boiled down the blubber. That oil is about the finest that one could get. I cleaned the guns with it and it took off all the rust, and left the metal in beautiful condition. It formed a thin coat of grease all over the guns. I also used some on my boots and shoes. The salmon are starting to run and many have been caught on spinner by the boys. Some of the boys also caught many halibut and cod."—S. Craighead. Nakolilok Bay, Alaska.



Bud Greenwood. son of Earl Greenwood, Superintendent of the Loyalsock State Game Farm, with "little Peter" a native on the Island of Tologi where Bud and two of his buddies are stationed.

Wait—But Not Too Long - - TIPS ON DUCK HUNTING

This season, when ammunition shortages put a premium on every shot, the duck hunter should train himself to judge distances, study leads, consider the killing distance of his loads—and act accordingly.

This advice from C. C. Mitchell, noted sportsman associated with the Remington Arms Company, applies not only to duck shooting, but to any type of upland game hunting. Don't shoot too soon, he warns, but don't wait too long.

Every seasoned duck hunter has seen over-enthusiastic gunners opening up on "sky-high" flying ducks, which probably would have swung into someone's decoy stool if given a little time and some encouragement from a properly handled duck call. The untimely and futile firing merely causes the flight to flare higher and hightail it for other parts.

The more the hunter learns about judging distance, Mr. Mitchell points out, the more proficient he becomes. The majority of ducks killed today—stone-dead in the air—are dropped at 35 yards or under, he believes. Shotguns are factory-patterned at 40 yards. Distances in the hunting field, and particularly over open water, are confusing to the beginner, and even to the average hunter. A real 40 yard shot on a flying duck, easy enough for an experienced gunner, frequently is estimated at no less than a 70 yard chance. And distances assume different complexions when estimated in the timber and on open water.



"Oh yes, I'm quite a hunter—I hunt 'coon in October, bears in November, deer in December, and shells all year 'round."

Good advice to the gunner is to practice distance estimating by snap-judging the distance between familiar points—the space between trees, lamp-posts or the height of buildings, all of which can be checked easily. Visualize a flying bird at each distance, check the measurement and you'll be surprised to find how far off you are. The average quail shot is close to, or under, 20 yards. Yet many sportsmen have boasted "clean" kills at 60 yards. Quail, and certainly pheasants, can carry a lot of lead—and many fall at that distance, but the "clean" kill is something else again.

The expert, who knows distances, leads,

(Continued on page 31)

The "Stove League" Meets on Accidents *(Continued from page 3)*

finger at the lad, "Pretty near got killed year fore last."

"Most of them need their eyes examined," volunteered Hal Jobson, "cause they can't see what they're shootin' at."

"I don't believe you're correct there Hal," said Diz Clark, "because the records the Game Commission sends out shows their hittin' their targets pretty good . . . even if they are some of us mountain boys."

"The Game Commission ought to give all of them city hunters examinations before they even give them a license," Diz Clark remarked.

"That's my opinion too," said Joe Stutz.

The entire scope of hunting accidents as to cause, remedies and prospective legislation was discussed openly and freely by the regular and contributing members. Opinions were varied and sometimes supported. Others lacked either favorable or unfavorable criticism or suggestion.

After a full three quarter hour discussion in which the stranger had listened intently but offered nothing, he introduced himself to the ensemble as Charles H. Freeman, a traveling salesman from southern Pennsylvania. He told the group that he was interested in all kinds of hunting, kept several bird dogs and also was vitally interested in the topic that they were discussing. He said that he too had been criticising the Game Commission for not doing something about this matter of human safety and had spent more than two hours at the offices of the Commission in Harrisburg, 'to learn first hand something about the cause and effect of hunting accidents.' The results of his findings, he said, were most astounding.

While at the beginning of the discussion the members of the "Stove League" were impressed, they were obviously unwilling to fully accept the remarks of this stranger in their midst, but were permitting him to proceed with considerable mental reservations on their part.

Mr. Freeman said that he had first examined the laws of Pennsylvania to see whether or not the Game Commission could do anything about this problem of human safety. He said that he was satisfied that there are adequate laws to protect human beings while hunting, but added that he had come to a very definite conclusion that hunting accidents were the result of two primary causes, GREED and CARELESSNESS.

"Can you tell us just what the Game Commission has done, since you said you checked up on the matter," queried Stutz.

"Yes, sir," said Mr. Freeman. "The Game Commission in 1936 was responsible for the enactment of the law which permits them to give public hearings to persons who were involved in hunting accidents and to revoke the hunting license privileges of the offenders for a period of from one to five years."

This statement was immediately followed by an emphatic remark by Vice President Ernie Mezzer who said, "I'll bet they've never done a darn thing about it."

"Yes, they have," replied Freeman, "and I know from my own knowledge because I took time to read the sworn stenographic testimony taken by the Commission's referee of both the offenders and the victim . . . if the victim was still living."

"Sit down, Freeman," invited Corney Clark as he took his muddy shoes off a chair that he had been using as a footstool.

"Thanks," said Freeman, and accepted the mark of hospitality.

"You know," Freeman continued, "the more I see and hear of hunting accidents the more convinced I become that some people are just plain damned careless. As an example, the Commission allowed me to read and take some notes on some of their hearing cases, but would not let me take the names of the persons involved. Said there was nothing to be gained by embarrassing them. Don't know that I exactly agree with that theory either. Maybe they're right but here is what happened in one of the cases I reviewed."



"A twenty-one year old farmer, living in the western part of the state, who had been hunting for the last six years, went rabbit hunting. He shot at a rabbit and thought he had crippled it. An old three strand wire fence separated him from where he thought the rabbit should be. He investigated, found some hair from the rabbit and set his gun through the fence. When he attempted to go through the fence, he said he must have tramped on the wire and discharged the gun. The pellets from his 16 gauge shotgun entered his left chest, between the seventh and eighth rib, causing a serious chest injury that confined him to a hospital for several months. The accident occurred in November. Seven months later when the hearing was held he testified his wound was still draining and that his hospital and doctor bills had already amounted to more than one thousand dollars, with more to follow. The Commission revoked his license for two years."

"Gosh!" said Diz Clark. "I never could afford to pay those bills."

" I wouldn't be so much concerned about the doctor bills as I would about that hole in my chest—always bothering you every time you wanted to do something," reminded Bob.

"Couldn't even pitch horseshoes," chimed President Joe.

Hal Jobson arose from his comfortable position, picked up a mail order catalogue, and as he exited out the back door said, "That's even got me scared; "I'll be back in a little while."

"Pure carelessness," observed Corney, referring to the accident case.

"Here's another case," continued Freeman, "that makes you shudder."

"Three young fellows ranging in age from seventeen to twenty-two years were hunting. All three companions were shooting at a rabbit. One of the lads in his anxiety to get another shot at the 'bunny', in some unexplainable manner, discharged the weapon. The shot practically tore the right leg from his friend who was standing about five feet in front of, and to the left of him. Amputation was necessary and the leg was taken off at the hip to save his life. The victim's mother testified the family had paid a hospital bill of $427.81, physician services of $250., nurse hire $189, blood plasma $16.00, and incidental expenses of more than $100.00. Then he purchased an artificial limb that cost $225., with special socks costing $11.13. When you add those figures up they total exactly $1218.94, and he still lost his limb. Boys I'm telling you—these accidents are both costly and serious. Besides he can't hunt for three years."

"Yes," commented Hal, "but most of them are just kids."

"But the Game Commission says that their records show that the ages of offenders range from 14 to 72 years," answered Freeman, "and peculiarly enough there does not seem to be any particular age group worse than another."

Jobson returned, placed the catalogue in its customary place, bought a bottle of "soft drink" and took his former seat, adding "I feel better now—gettin' away from those hideous shootin' scrapes for a few minutes."

Jimmy Ebson had cocked his feet up on a nearby egg crate and presumably was catching up with his sleep when the front door opened. Frizzy Gates was observed to be making a return engagement. Jimmy came to his senses pretty quickly when he saw Frizzy, who said to Mr. Thompson, "Ten cents worth of gum drops please, and charge them." Thompson demurred at her request for an extension of credit since she was already indebted to the magnificent sum of fifteen cents, of more than two weeks standing. Jimmy promptly climaxed the situation by agreeing to pay for the candy. Frizzy obtained her purchase, thanked Jimmy most cordially, and departed.

"Did you get any figures on what the Game Commission has done since the law was passed allowing them to hold hearings in hunting accident cases," queried Harve Betz?

"Yes," responded Freeman as he reached into his pocket and produced a mimeographed statement which had been handed him at the office of the Commission at Harrisburg. From the statement he read the statistical material to the men.

Four of the men who had gathered around Freeman were discussing the various items that appeared on the schedule.

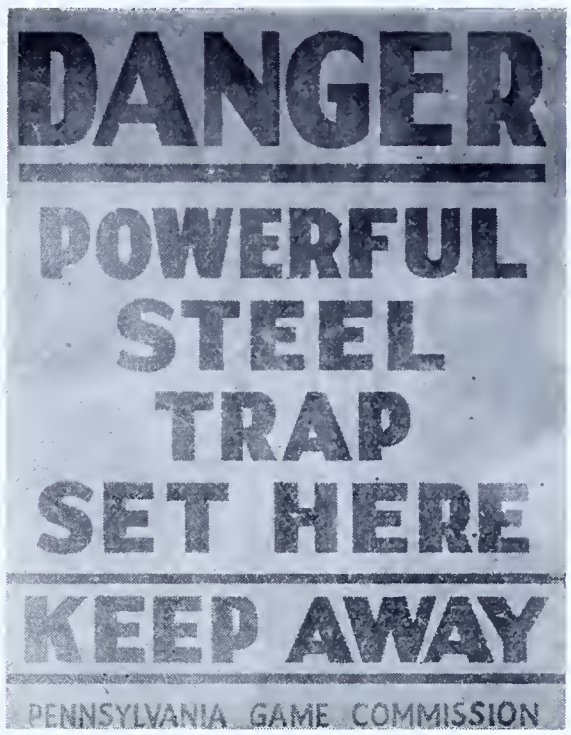
"Gee!" said Bob Darr "I didn't know the Commission had gone into this thing so thoroughly that they could revoke the license of persons who were incompetent to handle firearms. This statement shows three such persons have been denied the right to hunt or trap. I wonder what this one case was where the fellow's license is revoked for false testimony and report."

"I'll tell you about that," volunteered Freeman.

"Two men were hunting squirrels and one of them shot the other in mistake for a squirrel. When they prepared the hunting accident report required by law, they stated that they did not know who fired the shot and that the person who had done so escaped before they were able to discover the responsible person. It developed during the hearing that the referee became suspicious of the testimony of one of these men and asked him a point blank question. 'Isn't it a fact that you shot your nephew in mistake for a squirrel and then agreed to furnish this false statement?' The uncle admitted this to be actually the case, and of course the Commission revoked his license for furnishing false testimony both on the report and during the taking of testimony."

"What does this 'sub-section 4' mean that is indicated on the Commission's report," inquired Ernie Mezzer?

"The Game Commission can require satisfactory proof of the payment of all hospital and doctor bills in connection with hunting accidents. Even though the hunting license privileges of an offender are taken away for fixed periods of time, if the Commission invokes the requirement of satisfactory proof of payment of the hospital and doctor bills, the offender's hunting license privileges remain revoked indefinitely until the hospital and doctor bills are paid," explained Freeman.



Constantly striving to protect human life wherever possible the Game Commission will place hundreds of posters like the above in areas where its representatives are live trapping beavers. Please warn your friends to move cautiously in the vicinity of such posters.

"I found this schedule that we are looking at most interesting," said Freeman, "and I was particularly interested in the following comment that appeared in the lower part of the report. This statement follows:

Tabulation includes all completed hearings as of August 11, 1944, and including Hearing Case No. 604.

Average doctor and hospital bill per case $132.00, but figures are not accurate because some of the victims did not have complete figures; also, victims in 149 cases were unable to give expenses involved either because they are irresponsible for the payment of same or payment was made through the check-off system at coal mines, hospitalization, etc. Figures do not include expenses in connection with funerals, etc., in fatal cases. Other cases were purely charity.

NOTE: 383 persons were denied the right to hunt or trap for a total of 990 years, plus 3 persons for indefinite periods. Average revocation period 2.58 years."

"It looks to me, after studying this report, that the Commission has been pretty fair in discharging some of the offenders," remarked Joe Stutz.

Freeman remarked that he had reviewed several of these cases and was satisfied that the reasons asserted for discharging the offenders were satisfactory.

"Mr. Mezzer, I understood you to say that Jimmy Ebson narrowly escaped death by inches a year or so ago while hunting," said Freeman.: "I would be quite interested to have him tell me the story, if he will, in order that I can see if it parallels any of the cases that I reviewed."

"Jimmy, tell Mr. Freeman just how you were nearly killed," demanded Mezzer.

"Okay," responded Jimmy. "There were five of us huntin' deer Fall fore last, up here in the Cove. I spotted a deer about 75 yards up on the side of the hill near the Potato patch and slowly started to work my way towards the deer to get a better shot. I only took about five steps when 'boy' some fellow started shootin' with a 30-06. I fell to the ground and did my best to get as much cover as possible. He fired three shots about as fast as you could pump 'em out of a gun and the second one just missed my head by about four inches. The dirt flew up in the air and come down all over me. After he had stopped shootin' I hollered at the fellow and asked him what was going on over there. He didn't answer me but started to walk away pretty briskly along an old road where he was standing. I made my mind up that I was going to get some kind of an answer for such foolishness and started after him. I ran him down and demanded to know what

(Continued on page 28)

SUMMATION OF REFEREE HEARINGS

Year	Fatal Accidents	Non-Fatal Accidents	Self-Inflicted*	Intoxication	Assault on Landowner	Shooting Within 150 Yds. Bldg.	Incompetent to Handle Firearms	Damage to Property	Pointing Firearms	Careless Discharge of Firearm	False Testimony and Report
1936	5	15	..	..	..	..	..	..	..	..	..
1937	..	8	..	..	..	..	..	..	..	..	..
1938	3	18	4	1	1	1	..	..	..	..	..
1939	13	80	28	..	3	..	..	1	..	..	..
1940	12	128	44	..	4	..	..	4	1	1	..
1941	11	79	11	..	..	3	1	..	..	1	1
1942	6	50	8	..	2	..	..	3	..	..	..
1943	3	37	6	..	..	..	2	..	..	..	..
1944	11	59	12	..	..	..	..	..	..	..	..
Totals	64	474	113	1	10	4	3	8	1	2	1

* Self-inflicted injuries are included in the Non-Fatal Accidents.

SUMMATION OF REFEREE HEARINGS

	REVOCATION PERIODS											
	1 Yr.	2 Yrs.	3 Yrs.	4 Yrs.	5 Yrs.	Indefinite	*Discharged*	*Total Cases Adjudicated*	*† Sub-Sec. 4 Required*	*Sub-Sec. 4 Satisfied*	*Hospital and Doctor Bills*	*No. of Cases Hospital and Doctor Bills*
1936	1	..	2	..	13	..	4	20	..	..	$ 1120.50	10
1937	..	..	2	..	4	..	2	8	..	..	253.00	5
1938	5	4	3	2	7	..	3	24	10	1	1900.00	15
1939	16	32	11	5	10	..	23	97	32	14	7320.70	67
1940	32	27	13	4	14	..	60	150	36	6	19,571.50	117
1941	17	19	10	2	10	1	37	96	27	8	2415.00	37
1942	8	18	7	..	3	..	25	61	11	1	4997.00	45
1943	4	13	8	1	5	2	9	42	13	2	5420.50	42
1944	6	26	5	1	10	..	22	70	20	..	8446.00	51
Total	89	139	61	15	76	3	185	568	149	32	$51,444.20	389

† Sub-Sec. 4 Requiring proof of payment of doctor and hospital bills being satisfactorily adjusted before again eligible to procure a license.

Out Where They Belong

(Continued from page 5)



Over 2,000 rabbits were caught on the Letterkenny Ordnance Depot.

The Berks County sportsmen have trapped rabbits in large numbers, and quite rapidly, from this area through the driving method, whereby many sportsmen, as volunteers, participate in driving the rabbits into large, heavy twine nets arranged as a V-shaped corral.

Trapping in the metropolitan area in Pittsburgh and vicinity prior to last winter had always been done with box traps. The first rabbit drive conducted with one or two short sections of net was started in North Park, Allegheny County, on February 13, 1944, and this is the beginning, we believe, of a quick round-up in the future of rabbits from some of the park areas in that locality. Successful rabbit drives have also been conducted in Cumberland, Snyder, Delaware and Montgomery Counties. This type of trapping provides the most fun for the most people on territory where nets may be used, but is naturally greatly curtailed during war-time because of gasoline rationing.

The State-wide trapping campaign was launched during the winter of 1937-38 and since that time rabbits were trapped as follows:

Fiscal year	*Number trapped*
1937-38	5,853
1938-39	22,980
1939-40	31,053
1940-41	32,799
1941-42	20,330
1942-43	30,196
1943-44	33,083

Rabbits were trapped in the seven Field Administrative Divisions of the State as follows:

Division	*Number trapped*
"A"	9,857
"B"	1,705
"C"	3,927
"D"	4,102
"E"	2,433
"F"	4,014
"G"	7,045
Total	33,083

In order to provide proper control and assure the best results during the trapping program, two types of formal game trapping permits were issued by the Field Division Supervisors, namely,

Class "A"—Issued to sportsmen, Deputy Game Protectors and other persons to trap game on a voluntary basis only.

Class "B"—Issued to sportsmen, Deputy Game Protectors, Boy Scout Troops or Youth Groups to trap rabbits at the rate of 50c per head each, if Game Commission traps were used, and 60c per head if the Scout Troop built its own traps.

A total of 105 Class "A" and 689 Class "B" permits were issued in the State, making a grand total of 794 permits. Of this number 94 Class "B" permits were issued to Boy Scout Troops through their Scout Master or other leader. The number of rabbits trapped in the seven Field Divisions by Class "B" agents and paid for at either 50c or 60c each was as follows:

Division	*No. Rabbits*	*Amount Paid*
"A"	7,454	$3,730.80
"B"	1,035	517.50
"C"	2,364	1,182.00
"D"	1,352	676.00
"E"	1,877	940.50
"F"	3,249	1,624.90
"G"	6,284	3,244.30
	23,615	$11,916.00

Boy Scouts and one or two other Youth Groups trapped 4,357 rabbits in the 7 Divisions for which they received a total of:

Division	*No. Rabbits*	*Amount Paid*
"A"	61	$34.30
"B"	50	25.00
"C"	1,252	626.00
"D"	192	96.00
"E"	382	193.00
"F"	266	133.40
"G"	2,154	1,179.30
	4,357	$2,287.00

The Commission started off the season with approximately 17,000 box traps that had been made by the N.Y.A. from 1937 to 1941. Class "B" agents built 659 traps and in addition approximately 1500 newly built ones were used. They were produced under State contract on competitive bid, making a total of 19,159 traps that were available for State-wide use. About 5,000 additional traps will be available for this coming season.

The cost of operation includes salaries, wages, travelling expenses, materials and supplies and rabbits paid for at the per head rate. The total cost of the rabbit trapping program this past season was $28,335.04.

It has been the practice to charge one-fifth of the cost of manufacturing the rabbit trapping equipment to the current year's expenses. The total cost of rabbit trapping for the 1943-44 fiscal year, therefore, was $21,510.31, which means that 33,083 animals were trapped at an average cost per head of 65c. This includes the transportation expenses of releasing them. The difference between the two totals represents the cost of additional traps and crates that will be available for next season's trapping.

This coming winter the Pennsylvania Game Commission is again promoting a program to replenish those areas in which game is scarce with game trapped from areas in which it is plentiful, to give sportsmen in all areas an equal chance.

Some sportsmen may be interested to know that among the other game and fur-bearing animals trapped this past fiscal year there were 1,589 ringneck pheasants, 547 squirrels, 272 muskrats and 75 raccoons.

The officials in charge of the Letterkenny Ordnance Depot and the Pennsylvania Ordnance Works have also given the Game Commission permission to trap and remove foxes and other predators from these areas during the summer months so that next winter trapping operations will again be successful.

The rabbits trapped in metropolitan areas and released in hunting territory have, according to reports received from many parts of the State, increased very materially, and this fall a greatly reduced army of Pennsylvania hunters will again take to the fields and woods in pursuit of the wily cottontail. Our aim now is to not only maintain a supply of game sufficient for the hunters who are at home and able to avail themselves of this outdoor recreation, but to plan on a long term basis, looking ahead to the days when Pennsylvania's G. I. Joes and their buddies will return from all parts of the world and will want to trade the army rifle, the flame thrower, the tank, the mortar, the anti-aircraft gun and many others for the old trusty shotgun. That is the time when the need for this peaceful contact with the great outdoors will be greater than ever, and when the game supply will not only have to stand the strain of an additional number of hunters but of fellows who will be able to shoot even more accurately than when they went hunting before the war. At the end of this conflict when the Yanks return from their march to Rome, Berlin and Tokyo and "the lights go on again all over the world" they will shoulder shotgun and march to the hunting grounds, and the fur and feathers will fly!

Poverty or Conservation--Your National Problem

(Continued from page 7)

that Africa's great "dust bowl" once was as rich as the Mississippi Valley. Giant primitive forests, lakes and rivers once spread across the vast wastes of the Sahara.

Between the Gobi Desert and Mesopotamia, a thousand Genghis Khans, Attilas and Nebuchaadnezzars fought for the riches which these ancient lands once produced. They wouldn't be worth fighting for now if it were not for the oil deposits (of which the ancients had no knowledge) hidden deep beneath the earth's crust. And speaking of Dakota grasshoppers, as I was a moment ago, is a reminder that grasshopper plagues and human migrations, like "the Colonel's lady and Judy O'Grady," are sisters under the skin. Both come about through populations expanded beyond the tolerance of the food supply and when they migrate both seek a new location where vegetation is rich and plentiful. Both leave desolation in their wake and when they have exhausted the food supply of their latest invasion they move on to another. It takes no imagination on the part of anyone who has ever seen a grain field after the grasshoppers have finished it to see there the replica of man's migration path down through the ages.

Is it just a coincidence that those once rich lands where civilization has lived the longest are all now deserts and unable to support a one-thousandth part of their former populations, or is there a lesson which we have overlooked hidden in crumbling ruins of departed civilization? Could it be that our own falling water table, dried-up springs, man-made dust bowls and abandoned cattle ranges are the early symptoms of the same blight which turned the ancient garden spots into deserts? The scientists who have read the hieroglyphics written in the sands of time say it is not a coincidence but an invariable rule. Other scientists, seeking a formula by which we may avoid such a future, have given us assurance that, taken in time, soils, vegetation and subsoil water tables can be made to persist indefinitely and yield a balanced production of life's necessities.

Fragmentary translations of ancient hieroglyphics give hints of further illuminating data on internal conditions which preceded those early tribal migrations and resultant interracial conflicts of old. They are the only hints but they tally so accurately with known cycles of modern social upheavals that they leave room for more than a suspicion that there is a standard cycle of social and economic phenomena directly associated with the disappearance of natural resources.

Boastful praise of riches and self-glorification marked the writings and arts of newly established principalities on new and virgin lands. A note of social discontent crept into the ancient records when drought and pestilence smote the flocks. (Sounds like Kansas, Arkansas and the Dakotas.) Shepherds staged a revolution which was put down by the King's Guards. Labor complained of the high price of food. Redistribution of wealth was strongly advocated as a cure for the social discontent and was tried but whether it did any temporary good or not the cycle of events went forward as per schedule and when natural resources had been pretty well used up the governments proceeded to pick a fuss with their neighbors which resulted in a war of conquest and the pressure of population on natural resources was relieved, probably only until the new pastures gave out.

Records do not disclose whether they inflated the currency, indulged in boondoggling or talked of substituting a socialized state for the existing government, but if they did it would only make more complete the parallel between disappearing natural resources 8,000 years ago and the phenomena which have marked the social convulsions in modern times.

One of the first things that always happens when populations outgrow nature's britches is that the existing government is overthrown, usually accompanied by throat cutting and broken heads. That seems to have been standard practice down through the ages, and still is. Spain has given us a complete dramatization of this part of the cycle of social evolution during the last decade.

History of Civilization

Boiled down to the fundamentals, the history of civilization since man was created is largely made up of the rise and fall of governments, kings and empires through the exhaustion of resources. History, therefore, in reality turns out to be the story of hungry man in search of food. Conservation is the job of so managing our soils, waters and gifts of nature on this continent of ours that man's search for these necessities shall not be in vain.

If we do neglect conservation, as history has ignored it in the past, and any considerable portion of our population does search in vain for existence, we shall have increasing poverty, social upheavals and, *in spite of our high ideals and worship of peace,* we shall have *more* wars instead of *fewer,* for wars are the spawn of empty stomachs, and empty stomachs follow, as the night follows the day, the excess of demand for natural resources over the supply. Sociologists and economic doctors should study Biology.

No one can look at this continent today, compare it with the way we found it, and deny that we have ruthlessly ignored this law of Nature.

America is no richer than her remaining resources.

Hunger has, since the world began, thrown men at each other's throats. Hunger, or the threat of it, has been and still is one of the compelling forces back of racial struggles. Comparative peace reigns in all the biological world until the competition for sustenance precipitates a death struggle. America is not exempt from this rule of Nature.

Education in Conservation—the Only Real Road to Success

After all these years of effort to find some formula of conservation which would work I am convinced that until a new generation is taught in the Public Schools man's utter dependence on natural resources, until the teachers of Botany, Chemistry, Biology and Geology emphasize the functions rather than the terminology of their respective sciences; until in fact we have a majority of the American public schooled in the fundamental principles of conservation, criminal waste will continue to reduce our heritage of natural resources. If you will begin to work soon on the youth now in the grade schools, it will not be too awfully late.

To me, Education has become the only pathway that can lead us out of the doldrums.

The Conservation Commentator of *Science News Letter,* Dr. Frank Thone, recently summed up the conservation situation about as follows: Failure to practice the principles of conservation is largely due to the failure of our educational institutions to teach conservation, and the reason for this deficiency is that teachers have not been taught how to teach conservation.

A prominent educator of wide experience recently told me that there was one great unsolved problem in pedagogy. Teachers graduated from the best Teachers' Colleges continued to go forth and teach their pupils what they had been taught by their Public School teachers. They might use the new methods of progressive education but what they passed on to the students were the con-

(Turn page)



America is no richer than her remaining resources.

First Ducks

(Continued from page 8)

in our battered pot. How swell our lunch tasted out on the point with gulls screaming and diving overhead and the wonderful knowledge that I was in the company of the fabulous Jim. After lunch Jim took his usual nap and the Chesapeake and I explored the point marsh, picking up sea shells and other souvenirs dear to a boy's heart.

When the evening shadows began to fall we went back into the blind and renewed our vigilance for the wary quackers. Our first evening guests were Teal. Jim loved the little ducks and would rather shoot a Teal than any Canvasback that ever flew. Why I never knew. Maybe he liked their pretty colors. Jim was an esthetic soul. There were four of them as I remember, two drakes and two ducks. The little speedsters buzzed over the decoys like giant bumble-bees and at the mighty report of Jim's ancient cannon a drake tumbled out of the formation deader than a mackerel.

Then a strange thing happened. One of the remaining flock instead of high-walling it for Florida and points south, turned



Ginger Queen did herself proud.

and flew over the blind as if loath to leave one of his mates. "Take him boy, take him" whispered Jim, and take him I did, even if it did take both barrels to accomplish it. Two ducks had been brought down by the little twenty. I was wild with joy even if I never killed another bird. Ginger Queen did herself proud and laid the two Teal in my lap. I felt like a conquering hero. It was getting dark and reluctantly we picked up our gear then headed back to the landing.

Jim gave me one of his ducks and the three fat fowl made quite an impressive bag. When I arrived home that memorable night I was as tired and happy as a boy ever gets and mother had a wonderful supper all hot and steaming waiting for me. Then after another look at my ducks I retired to sleep the sleep of utter exhaustion. I saw "Uncle Jim" the next day and he was his usual buoyant happy self. It was his last duck shoot however for arthritis had taken its toll, and the old man never was able to venture away from shore again. His last Teal had been gathered in and Ginger Queen had won a hard earned vacation.

Poverty or Conservation--Your National Problem

(Continued from page 27)

cepts they had acquired in their own earlier years in school.

Thus teachers were still continuing to teach what their teachers had taught, who in turn taught what their teachers had taught them. If this be true it is only a deadly parallel to the mental habits of our whole adult population who continue to the grave living by the convictions implanted in their minds when the North American continent was new and its riches undespoiled. It constitutes a major challenge to the educators. The battle for conservation seems to me to present many aspects similar to the recent battle of little nations of Europe against the organized Axis predators. We can all see now that if the small free nations had banded together to fight the invader instead of succumbing to Hitler's "divide and conquer" strategy the story of the first years of the war would have been a different one and victory not so long delayed.

In the battle for conservation we have as many organized subdivisions, each working alone as there were little nations in Europe. It was with the hope of uniting these subdivisions and coordinating their combined efforts against the wasting of resources that the National Wildlife Federation was proposed and its organization attempted. Some such device for unification seems desirable in the extreme needs of the years to come. Whether or not it succeeds depends on the willingness of the public to give the matter their attention.

The "Stove League" Meets on Accidents

(Continued from page 25)

was going on. First, he told me that he didn't do any shootin' and it must have been somebody else. I threatened to go back and get the rest of our gang and beat hell out of him. Then he decided that he better tell me the truth. He said that had seen a deer and then lost sight of it and when he had seen me moving along in the brush he thought it was a deer and continued to shoot until I had fallen to the ground. Don't think I didn't tell him plenty. I took his license number and turned it over to one of the Game Protectors and I understand that they fined him for shootin' at a target not plainly visible. I don't suppose I'll ever have a more narrow escape and live to tell anybody about it."

"Yes, sir, Jimmy you did have a narrow escape, and your case is simply another of those cases of shooting first—and looking later," said Freeman.

"Well, boys I've got to be on my way," remarked Freeman. "It's a little after eleven o'clock and I've got to get some sleep before tomorrow morning. Before I go I think you will agree with me that most of these hunting accidents are the result of GREED and CARELESSNESS, and its up to every individual hunter to make certain that he does everything within his power to avert these accidents. I want to say that I have enjoyed visiting with you fellows and I expect to be down through this country sometime next month. Do you mind if I stop in and again join in one of your sessions?"



Lay your gun through the fence, then crawl over if you want to play safe.

"Certainly not," invited President Stutz, "and I think the next time you stop in we ought to consider ways and means of helping the Game Commission overcome this tremendous problem. It's a good bit like everybody discussing the weather—and nobody doing anything about it. Can't do much about the weather, but there must be something we can do to help prevent accidents."

"Glad to lend a hand any time," said Freeman, as he bought another package of cigarettes from 'ole man Thompson and started in his big automobile up the mountain.

"That Freeman fellow is a pretty interesting sort of a 'cuss' and I'm looking forward to having the benefit of his knowledge on preventive measures the next time he is in town," remarked Corney Clark.

"So am I," said Jobson.

'Ole man Thompson said, "sorry boys we've got to close up the store, it's gettin' pretty late."

The members bid each other good night and departed for their respective homes. We since learned, however, that Jimmy stopped at the Gates home to realize some small return on his investment in gum drops.

Unexpected Dividends

(Continued from page 11)

creasing. For the last two years, my son Edwin has gone afield with me, helping to work the pointer, learning how to handle her. This spring he helped me splice loops on the fly lines and prepare for the opening day on trout. We fished together, camped together. He is now a full-fledged fisherman. We look forward to many trips and much companionship through the years. That's the way it was with Dad and me. I'm praying it will be so, now that I'm the Dad.

This year another new dividend will be paid. He has a junior hunting license. It will be a great day when he brings to bag his first bird over his own dog.

But what is more important, he will know what it is all about. He will understand what conservation means and how to practice it. At first it was hard to make him understand why all game should not be shot, why fish should be put back, that only just enough for a meal should be kept, regardless of how many the law allows. Those days are over; he realizes that, if we are to have trips together in the future, we must conserve now. Sportsmanship will be a second nature rather than something to read about.

No, I am not bragging or trying to show off. My boy is just another kid, the same as yours and the others. Every kid will react to suggestions, be they good or bad for him. It is up to us grown-ups to see to it that our sons and the youngsters near us get the right kind of suggestions first. They are the ones, if made at the impressionable age, which youth will remember as he grows up and takes our place in the scheme of things. Once he gets the right slant on conservation, we need have no fears for the future of the sport.

Think back for a moment. Do you remember, a few years ago, those happy hunting and fishing days in favorite covers and waters? How many of those spots can you hunt and fish now? How many are gone, or depleted of wildlife?

As I look back—place after place has given way, some forever—others have become barren. With time, I have constantly had to look farther and farther for new lands and waters. Why? Because, for one reason or the other, favorite spots are gone or useless. Lack of a conservation policy has robbed us of some of our finest out-of-doors.

Some day there will be no more new territory to find. Maybe not in our time but all too soon.

It may be that the dividends I seek with my children will cease—we will have no way of collecting them. Yet it need not be so. It won't be so if we are willing to spend a little time, exert a small amount of effort and do something for youth to give him a solid foundation upon which to base his future sport.

There are many things which we can do to accomplish that end. One is to establish Youth and Wildlife clubs in our own schools or at our sportsmen's clubs. It is a very simple thing to do. Here are a few of the things we did. They might be a helpful starter for you.

HUNTING WITH MY SON

By Pauline Tyson Stephens

Oppressive burdens, heavy cares,
And tasks that clamored to be done,
Were swiftly swept aside and lost
When I went hunting with my son.

Each care and task dissolved into
The bond between my son and me;
Oppressive burdens disappeared
Within our silent unity.

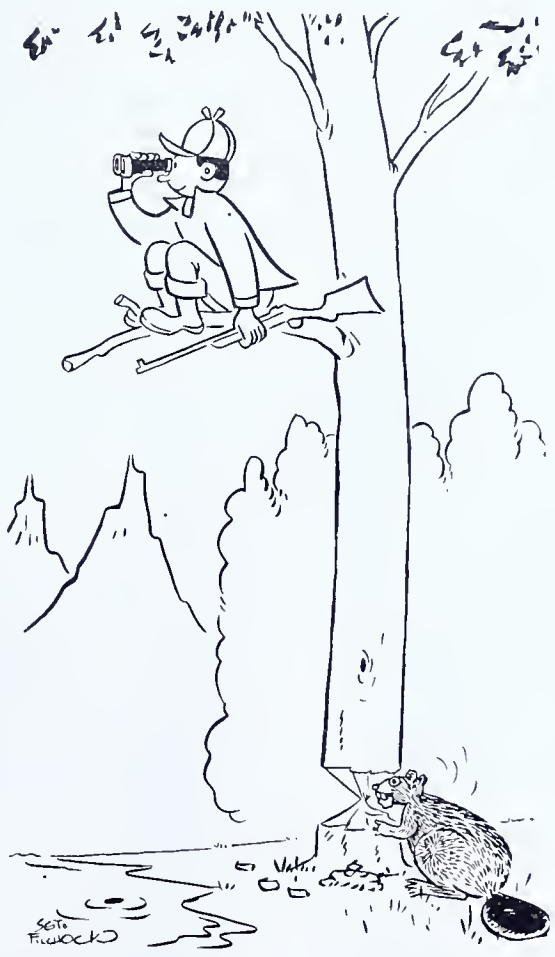
The rhythm of our tread was sweet,
As man and man, we rounded hedges—
Eyes fixed, in mutual pride, upon
The setters, bounding over sedges.

Unmeasured still our ecstacies
In huntsman-like desires
Fulfilled in sudden flash of wings;
In arms upraised—staccato fires.

How good to crown the hunt! And yet—
What really mattered game and gun?
Success was in the peace I found
When I went hunting with my son.

First, get a few sportsmen interested in the idea. Any real sportsmen's club will be glad to cooperate. Pick out a fly-tier, a good fly fisherman, a dog and gun man and others who can teach their arts and give of their knowledge.

Second, go to the school authorities—the Superintendent or Principal. Lay your idea before him and ask for his cooperation.



Have a teacher volunteer to become the leader. Arrange the time for meeting once a week in one of the schoolrooms, if possible. Or, if the club desires to sponsor the junior sportsmen's group, select a place and time for the meetings.

Be prepared for more members than you expect. The kids love it. Tell them that they will be taught how to hunt and fish, how to tie flies, cast; train and care for dogs; use guns and all such valuable points that an outdoors sportsman should know.

Establish various activities, such as winter feeding programs; raising birds and fish (where practical), contests—such as casting, shooting, dog trials—and hold special meetings or dinners where the grown-ups can come and marvel at what kids from eight years on up can really do when given a chance.

Throughout it all—teach good, common-sense conservation. Obtain literature and pictures from the conservation departments and any other organizations which have them. There is a tremendous amount of material available.

Above all else, practice what you preach. Once let a youngster see you take illegal game or fish or do something which is not good, you can shout your head off about conservation to no avail.

Our only hope for the future of sport lies with these kids. Too many of the older generation remember the good old days when fish and game were to be had by the taking. They have not become reconciled to the needs of the present wherein money must be spent on research instead of buying game or fish to put into the covers or streams. They cannot understand that wise management of the waters and coverts will produce far more than all the propagation money can buy. Although their mentalities have gone along with the discoveries in mechanical and other sciences, they are incapable or too stubborn, to accept the discoveries in the science of conservation. They do not even admit that conservation is a science.

Youth is more versatile—his mind is free from prejudices and outmoded ideas. He can accept and will practice the science of conservation, the same as the other sciences.

Some day the majority of our educators will accept that science as a valuable course in our school systems. They will make it a fundamental part of geology, biology, economics, agriculture and all the various studies which deal with the world and ourselves as part of that world.

Throughout the ages, civilizations have arisen and died, because they did not know the science of conservation. It behooves us to save our civilization from their fate. Teach the youth while his mind is wide open and you will be helping save our Wildlife for future generations—for your children and my children.

And all the time, you will be reaping unexpected dividends which will grow bigger and be paid more often as time goes on. Take your kid or the friend's kid on the next trip—and teach him by your example. You will never regret it if you do.

Bandannas are Versatile

(Continued from page 14)



Bandannas can be used as caulking for your boat.

band that is hard to beat. Furthermore, if you ever have to help fight a forest fire you will find that a wet bandanna tied over your face bandit fashion will help keep the smoke from choking you to death.

During severe cold weather a bandanna has many uses too. It can be tied over the ears to prevent frostbite. As I mentioned before you can protect your chest from the cold by tying it around your neck in a triangular shape and stuffing it down in the front of your shirt. In the event you have no sun or snow glasses it will prevent snow blindness by tying it over the eyes if it is coarsely woven. If it is a close weave you can punch two small holes in it with a stick far enough apart to see through. And when gloves are forgotten, cover your hands or wrists with bandannas and they will keep warm.

If your canoe develops a rip in the canvas, and you find that you have lost or forgotten your patches for just such an emergency, a square piece of bandanna torn to size will cover the hole and get you to camp if you cover it liberally with marine glue on both sides, stick it on and let it dry. Likewise on a portage a bandanna makes excellent padding for the spots where the weight of the canoe digs into your hide. When riding rough water or shooting rapids they can be used to lash your duffel firmly to the gunwale, thus preventing it from moving about and eventually upsetting the canoe.

Bandannas can also be used as caulking for your row or power boat if it develops a crack while away from port. Pound one tightly into the crack with any blunt tool that is aboard. It may leak a little, but it will keep most of the water out and enable you to reach port without swamping the boat.

If you break your only fishing rod when traveling light you can repair it by binding it with strips torn from a bandanna, and make it do until you have finished your trip. Likewise if the cork comes off the grip on your rod a bandanna wrapped around it will make a fair substitute and keep the metal from biting into your hand. Then too, if a guide is knocked off, it can be tied back on with thin strips torn from your 'kerchief. And if the reel lock breaks —they often do—it can be tied back on with more bandanna strips.

Guns can be repaired in the field to some extent if the break is not connected with the mechanism. For instance if you fall and crack or break the stock or forearm you can put the gun back in shooting shape by binding it well with strips torn from your bandanna. If you run out of cleaning patches for your gun such strips will also solve that problem, by tearing them into small squares.

If you ever decide to hunt alone in unfamiliar territory, away from your main hunting party, you need not be afraid of becoming lost if you mark your back trail with strips torn from your bandanna. All you have to do is follow them back to camp.



It may leak a little but you should be able to reach port.

A bandanna will also make a good substitute for a worn-out sock. You know the kind I mean—the one that always develops a hole about five miles out of camp and lets the big toe protrude until it feels like the sock is trying to cut off the end of your toe. This has happened to me many times and how good it feels to get the bothersome thing off.

Editor's Note: Our practical author, who by the way is now just plain "G. I." Floss, probably undergoing basic training in some camp where the object of his narrative will enable him to practice what he preaches if Uncle Sam's regulations permit, forgot one thing—namely that a red bandanna is a sure "come-on" for a cantankerous bull and should be respected and avoided accordingly.

Just Ramblin'

(Continued from page 13)

which inspired his great poem. And a photographic record of its homelife will truly be an historical contribution to the ornithology of our great Commonwealth.

Few persons even among the most noted collectors of yesteryear have had the privilege of observing these birds at their nesting site. Last spring I had such an opportunity but the photographic possibilities were so hazardous that it would have been sheer folly to attempt it without considerable advance preparation. I might have done it were it not for the fact that I was governed strongly by the recollection of my former chief, Dr. George M. Sutton, who fell from a cliff at McElhattan while attempting the same thing, later to convalesce in my own home as a result of several cracked ribs and a broken collar bone. There were two newly hatched young and three eggs in the nest I visited but from my precarious perch on next to the top rung of a long ladder against the almost perpendicular rock wall I could not possibly lean back far enough to take a picture in focus for fear of losing my balance. It was the first time in my life I was ever too close to my subject.

With the telephoto lens mentioned previously the life history of the raven in Pennsylvania recorded on film in color may prove more than just a possibility.

Arriving at Salladasburg at about five-thirty on Sunday afternoon, former Game Protector McClarin threw cold water on my shoulder by telling me that he was afraid I got there a little too late. In his opinion the birds were about ready to leave the nest. Nevertheless, we hastened to the farm about a mile distant from the town. As soon as I saw the tiny cup-shaped abode and its two fully-feathered inhabitants I realized I would have to work very fast in order to get any kind of a picture at all. One sat in the nest, the other was perched on the side obviously on the point of taking flight. I had hardly completed the necessary camera adjustments and stepped on an old bench to give me the heighth necessary to photograph the youngsters when one little rascal—the one perched on the side—took it into his head to fly to a tall hemlock about twenty yards away, where it clung insecurely until I managed to catch it. With extreme care, I attempted to put it back in the nest, but upon doing so the other youngster, which had not moved until that time, also decided to scram, alighting so high in another hemlock that I could not possibly reach it.

However, the captured bird did "stay put" long enough for me to get some color movies and a few graphflex shots before one of the parent birds, presumably the mother, came to a nearby branch, uttered a few calls, and presto! in less time than it takes to tell the object of my ambitions left its home so quickly I did not know what happened except that I was "holding the bag." Had I gotten there a day sooner I could have photographed both young birds being fed very easily with my 4-inch telephoto from the front porch of the farmhouse. All I would have had to do was reflect the light of a mirror on the nest and sit tight until the action occurred, then simply trigger my camera and all would

(Next page)

What is the N. R. A.?

(Continued from page 15)

and ODCM is a regular branch of the United States War Department that is supervised by a Commissioned Officer of the Army.

The N.R.A. was instrumental in creating the ODCM and the Director has always served as an active Director of The N.R.A. too!

The ODCM is authorized by an Act of Congress to issue or sell certain shooting supplies, when available to N.R.A. chartered clubs and N.R.A. members. For the duration of the War, however, the sale and issue of all ordnance material has necessarily been discontinued.

Q. How much does it cost to join?

A. Boys and girls (under 19 years of age) may obtain Membership for 50 cents a year. Or with a one year subscription to *The American Rifleman* the cost to boys and girls is $2.00 a year.

The Senior (18 years or older) Annual Membership cost $3.00 for one year or $5.00 for two years. The Life Membership cost $50.00 and the Life Endowment Membership $100.00. *The American Rifleman* is mailed to all Annual, Life and Endowment members.

Q. What about a Club Charter?

A. The N.R.A. charters Junior, College, Senior Class A, and Senior Class B Clubs:

I. U. S. citizenship is required in all types of clubs.

II. The age limits are as follows:
1. Junior Clubs—under 19 years.
2. College Clubs—none, but each member must be a bona-fide matriculate.
3. Senior Class A Clubs—18 years or older.
4. Senior Class B Clubs—16 years or older.

III. The number of members required is ten for each type of club.

IV. N.R.A. dues and charter fees:
1. Junior Club—$5.00 annually.
2. College Clubs—$5.00 annually.
3. Senior Class A Club—$2.50 per member annually. (Each member of a Class A Club is also an individual member of N.R.A.)
4. Senior Class B Club—$10.00 for charter fee and $10.00 annual dues.

Q. What does it mean to me?

A. Target shooting is the ideal group activity because it combines, as does no other sport, the elements of practical national defense with a form of recreation. Today it is the plain duty of every American to acquire a working knowledge of the proper handling of firearms. Rifle and pistol shooting is truly the typical American all year sport. It recognizes no social caste; it affords a fair chance to all competitors; it gives the whole family an opportunity to play together as a team; it develops and demands those qualities of self-reliance, clean living and good sportsmanship which are essential to the American way of living.

Q. How do the officials of the Government regard the work of the N.R.A.?

A. The best answer to this question is the following excerpts from a recent statement made by the Hon. Robert P. Patterson, Under Secretary of War:

"As President of the National Board for the Promotion of Rifle Practice, I have a high appreciation of the value of civilian marksmanship training and a friendly interest in the program of the Board, and The National Rifle Association as well."

Wait -- But Not Too Long

(Continued from page 23)

and killing range of ammunition, can make shots which are awe-inspiring to the novice. But, unless one is an expert with the heavier loads and super-choked guns, conservation authorities counsel against this type of shooting. Far too many cripples result from such chance shots.

Don't shoot as soon as you see a flight winging high over you, cautions Mr. Mitchell. You may cripple a duck but you won't bring him down. And you'll certainly spoil the other fellow's chances. If not shot at they may swing back to you. Don't wait, however, until you "see the whites of their eyes."

"Remember," he says, "the tighter your gun's pattern the more ducks you'll miss at close range—or, worse, tear to pieces. Wait until you can identify the species clearly or, to use an expression common in the mallard country, 'When you see the green on his head, SHOOT!'

"For safety, shoot either sitting or standing. Never, if there is any way to avoid it, jump up to shoot. You may lose your balance and endanger the lives of your companions and yourself.

"Make every shot count this season. If you must indulge in sky-high shooting—and are not an expert or properly equipped—take along a good retrieving dog. He may help you save quite a few ducks."

Just Ramblin'

(Continued from page 30)

have been hunky-dory. However, the episode was not without its remuneration as can be attested to by the accompanying photograph made under the most adverse of conditions.

From Salladasburg I drove to our State Game Farm at Loyalsock, to discuss with the Game Farm Superintendent, Earl Greenwood and the Game Land Technician, John Langenbach, the possibilities of photographing certain research experiments which are being conducted there at this time. Unfortunately the weather was too inclement—it rained cats and dogs next day—to do any picture taking although I learned much about a hitherto questionable characteristic of the ringneck pheasant, namely its use of groundhog holes as a means of escape from the hunter's gun, or as a sanctuary when closely pursued by winged or four-footed enemies. Some hunters claim that a ringneck, once having sought refuge in a groundhog hole, is unable to emerge because of its long tail. It is assumed apparently that its tail would become wedged in trying to turn around. From what I could gather in the short time I discussed the matter with Mr. Langenbach, the birds at this stage of the experiment at least had more of a fighting chance of seeing daylight than one may suppose, all of which further proves that old axiom "Where there's a will there's a way."

And as I've always said many times before, there is always a way to stop long-winded speakers from setting their mouths to talking and going away and leaving them—a breach of etiquette I shall not commit. My little excursion was uneventful compared to many which have been made in years past, but there will no doubt be others, and if you want to hear about them let me hear from you.



Young Hummingbird on the nest.

ANSWERS TO "WELL-WHAT'S WRONG" ON PAGE 21

1. Buck's antlers would be in "velvet" when fawn was young as shown.
2. Ospreys invariably carry their fish with the head toward the front.
3. Rattlesnake's fangs are in upper jaw.
4. Nothing wrong with this one. A white pelican was found in the river near Harrisburg on October 5, 1926 and brought to the Game Commission to be photographed. (See page 20, May 1944 GAME NEWS.)

THINGS YOU MAY NOT KNOW

Horses are more liable to catch pneumonia in the wintertime than dogs. The reason is simple: horses sweat, dogs don't. Dogs perspire through the tongue and cool themselves off by panting. But for his safety and comfort, give that hunting dog a good rub down after a hard day's work—before putting him in his kennel for the night.

HUNTERS YOU KNEW

OMNIVOROUS OTT

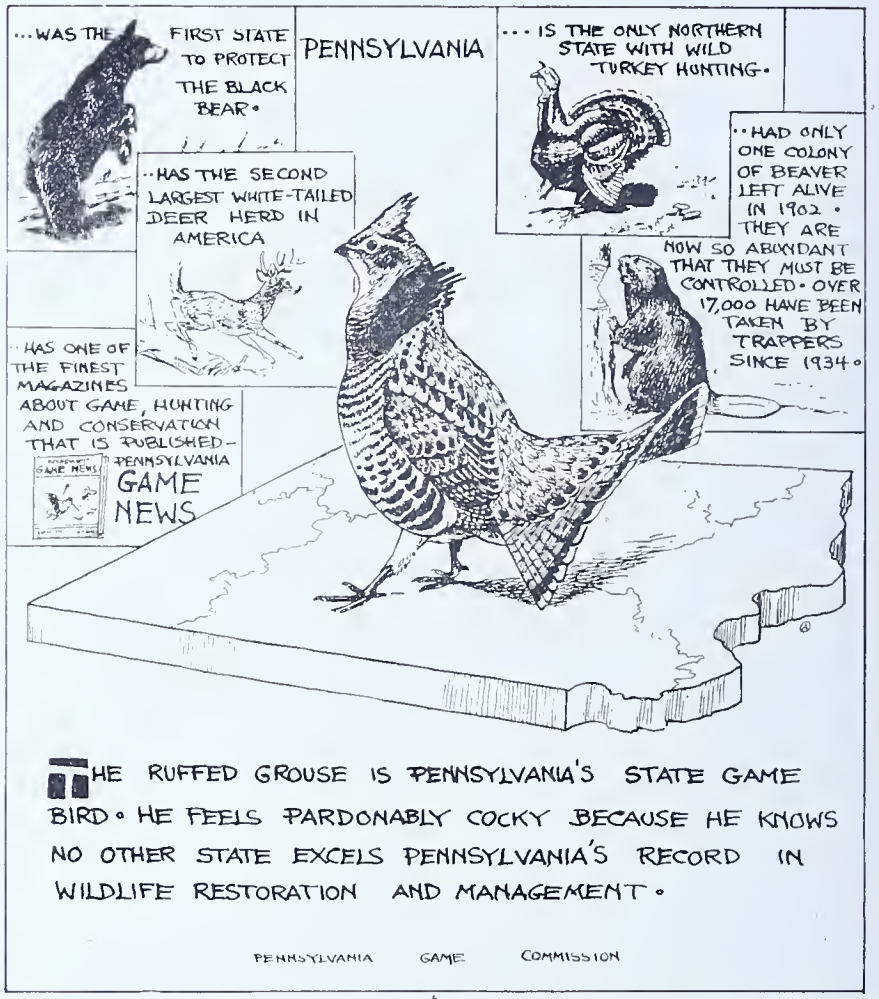
Whenever Ott Good
Roamed through the wood,
He would munch on this and that.
He'd eat elderberries,
Hazel nuts, rum cherries . . .
Small wonder our Otto was fat.

Food became an obsession,
He didn't use discretion;
He goes hunting no more thru the glade.
This is the sad tale of
One who ate a pail of
The fruit of the deadly nightshade.

—CARSTEN AHRENS.



Another New Feature



"Drummer the Grouse" has been characterized by the Commission's staff artist, Jacob Bates Abbott, and will tell some story concerning wildlife in the Commonwealth every month. As an afterthought the illustration was made to fit a two column newspaper matrix, and if sufficient papers within the Commonwealth indicate their desire to take advantage of such free educational service the Game Commission will be happy to furnish enough mats for the purpose. Editors, let's hear from you.

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Pennsylvania Game Commission
Harrisburg, Pa.

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PENNSYLVANIA Game News

November 1944

P84 34
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Ten Cents



Photo Pa. Dept. of Forests and Waters.

Pignut Hickory along old farm road.



Photo Pa. Dept. of Forests and Waters.

This butternut tree adds much beauty to the rural setting above, as well as shade and food.

Wildlife Needs No Ration Books - - If Food is Planted Intelligently

By C. C. Freeburn

THERE is nothing so stimulating as contact with Nature.

There is nothing so soul-satisfying as doing something useful.

Comparatively few people have considered making a hobby of planting trees and shrubs that will later serve as food and cover for our wildlife. Yet anyone who has a small plot of land can start a little Wildlife Victory garden, and anyone who does undertake such a hobby will find that it pays big dividends in health and happiness. The study of trees and shrubs, working with them, watching them grow is bound to relax both mind and body from the worries and tensions of business.

Planting trees, shrubs and vines to provide better natural food and cover conditions for wildlife is one of the vital phases of game land management. In the past too much of it has been done without adequate planning, with the result that very few of the seedlings survived more than a year or two. Plants, like all other forms of life, are delicate and require certain environmental conditions if they are to thrive. These conditions vary with each species.

First consideration should be given to the soil. Unless it will meet the requirements of the trees to be planted, it is a waste of time, effort, and money to complete the operation. Then too, we must consider whether the climate is sympathetic to the seedlings in question. Trees which thrive in the southern portion of the State may not be able to stand the more rigid conditions of northern Pennsylvania and vice versa. Tolerance is another factor. Does the plant in question thrive in sunlight or in shade? When this is decided we must also know what percentage of each is required for optimum conditions.

Perhaps one of the best methods is to learn what food and cover plants occur naturally in the section to be planted. If this is done we will frequently find that our purpose can be attained by releasing from suppression those species which are already established. If we follow the practice of wise release cuttings, much of our plantings will be unnecessary unless we are interested in setting out trees for forestry purposes.

Where planting is needed we will frequently find the required seedlings growing in the wild. One or more spots may have a surplus which can be transplanted to the desired location. If this is done it is rarely that we will find it necessary to purchase plants and if both thought and care are used, the rate of survival will be much higher.

Naturally many other factors must be considered. For instance, if we have large deer herds in the location of our proposed plantings the young plants must be protected

(Continued on page 31)

THE FEDERAL TAX ON ARMS AND AMMUNITION

HOW IT HAS AIDED PENNSYLVANIA'S LAND PURCHASE PROGRAM

By W. Gard. Conklin

Photographs by the Author

WHEN THE Congress of the United States in 1932 imposed an excise tax of ten per cent on sporting firearms, shells and cartridges, a great deal of adverse criticism from sportsmen resulted. Taxes, regardless of their purpose, seldom produce joy, and this tax imposed on sportsmen was no exception. Incidentally, the tax was increased to eleven per cent in 1940, and since then, eleven cents from each dollar a hunter pays for guns and ammunition finds its way into a special fund in the United States Treasury.

Leading sportsmen of the country were of the opinion that this tax should be used for their benefit, and led a campaign to persuade the Congress to ear-mark the income, and appropriate funds annually from it for wildlife conservation purposes throughout the United States. Five years of tireless effort on their part resulted in the passage of the Pittman-Robertson Federal Aid to the States in Wildlife Restoration Act, which was signed by the President on September 2, 1937. It ear-marked revenues derived from the arms and ammunition tax for use in advancing wildlife restoration in all States which adopt appropriate enabling legislation, and provides that the Federal Government may pay 75 per cent of the total cost of projects approved by the Fish and Wildlife Service of the United States Department of the Interior, the other 25 per cent to be paid by the State game department concerned. The State departments then began receiving much needed help in their efforts to provide better hunting, and criticism of the tax vanished when sportsmen saw that it was being spent for their benefit.

The Federal aid program, however, has at least one weak spot which sportsmen and State game departments cannot afford to overlook. Funds derived from the tax are not automatically appropriated to the United States Fish and Wildlife Service for wildlife restoration purposes in the various states. No money becomes available until and if the Congress makes a specific appropriation, and in consequence, interested sportsmen each year find it necessary to exert a certain amount of influence on the Congress to secure funds to which their State game departments are entitled.

Since the tax fund may not be used for other than wildlife restoration, the question naturally arises why the Congress does not adopt an Act specifically appropriating the money for the purpose intended, making it unnecessary to pass annual appropriation bills. Pennsylvania's Legislature very wisely took comparable action years ago by incorporating a provision in the Game Law specifically appropriating for use of the Game Commission all funds derived from the sale of hunting licenses, collection of fines for game law violations, the sale of forest products from State Game Lands, and other revenue received by the Commission. Since then, sportsmen have been relieved of the



Federal Aid Funds helped the Commission to acquire 1,986.4 acres of woodland in Lancaster County, which is now State Game Lands No. 156.

cessity of seeking appropriations from the gislature. The Congress, unfortunately, is t able to take such action, it being con- ary to the United States Constitution.

In no year has the Congress appropriated r the Federal Aid to the States program e full amount of the revenue derived from e tax, and there remains in the Federal reasury about nine million dollars ear- arked for wildlife restoration, but not yet ade available for such purpose. It is adily admitted that good policy warrants serving a reasonable amount of money for an periods, but such policy might be rried too far, and to the detriment of ortsmen. A back-log of nine million dol- rs under normal conditions would not be stified.

These comments are not intended to be itical of the Congress, especially insofar the period of the war is concerned. That gust body faces innumerable trials and ibulations in its exceedingly difficult task providing funds with which to conduct e war and to keep governmental ma- inery running. Wildlife conservation is ly one small cog in an intricate machine d as such is not entitled to priority over e many more essential matters. Quite ely, members of Congress are deserving sympathy; not criticism. Until the war won, hunters can well afford to exercise od sportsmanship by not pressing their mands. However, after the war, they will ve every right to expect the Congress to propriate for the Federal Aid to the States Wildlife Restoration program all of the nual revenue derived from the tax and much of the accumulated fund as can used wisely to provide for expanded pro- ams during post-war years.

The post-war period will create difficult oblems for wildlife administrations of the rious States. For instance, an increase of nting pressure is anticipated since many en now in the armed forces who never nted game prior to the war, but who have become gun conscious with the constant use of firearms of all types on the battle fronts as well as on maneuvers. They will become hunters in the post-war period. It will then be necessary to take all precautions against drastic depletion of the game supply. Federal aid to the respective States will be needed more than ever before, and maximum appropriations by the Congress should then be made.

The Pittman-Robertson Act of 1937 provides that not to exceed eight per cent of each Congressional appropriation may be used by the Fish and Wildlife Service for administrative purposes. The balance is apportioned to State game departments, "half in the ratio that the area of each State bears to the total area of all the states, and half in the ratio that the number of hunting-license holders of each State in the preceding year, as certified to the Secretary of the Interior by the State fish and game department, bears to the total number of paid hunting-license holders of all the States." This method of apportioning funds to the respective States seems to be reasonably fair and equitable, although certain States where special licenses are required for hunting big game receive larger apportionments than those, like Pennsylvania, with a combined large and small game license.



A Pittman-Robertson Project of 3,870.9 acres in Monroe County, included a "Castle" as well as a large lake from which ice formerly was harvested, now State Game Lands No. 127.



A tract of 2,596.8 acres of woodland in Indiana County, now State Game Lands No. 174, was acquired with the help of Federal Aid to the States Wildlife Restoration Funds.

Following is a statement of the annual Congressional appropriation since the Pittman-Robertson Act became effective, and Pennsylvania's apportionment of each appropriation.

Federal Fiscal Year	*Congressional Appropriation*	*Pennsylvania's Apportionment*
1938-1939	$1,000,000	$46,025.99
1939-1940	1,500,000	72,400.42
1940-1941	2,500,000	119,218.65
1941-1942	2,750,000	130,083.67
1942-1943	1,250,000	57,372.30
1943-1944	1,000,000	43,646.30
1944-1945	900,000	38,416.59
	$10,900,000	$507,163.92

It will be noted that appropriations increased each year for the first four years, but after the United States entered the war, smaller appropriations were a logical consequence. Incidentally, the tax fund dropped from an all high of $5,535,773 during the 1940-41 fiscal year to $1,062,000 for the 1943-44 year, the reason for which is that fewer

(Continued on page 24)



Izaak Walton League of America Looks to the Future

Editor's Note: The following article contains material taken from the files of the Izaak Walton League of America and revised for publication in GAME NEWS.

By Howard Shilling

President, State Division, Izaak Walton League

AGAIN, as in World War I, America's might is turning the tide of battle in Europe. The demands on our Country during the present conflict have been far greater than those experienced in 1917-18, and now, with victory in sight, we come to realize more forcibly than ever before that the brawn and sinews of a successful war effort are squarely based upon the nation's natural resources and that the economic welfare and standard of living to be enjoyed by the millions of our boys giving their all on the far-away fighting fronts, as well as generations yet unborn here in America, will depend upon how well we husband that natural resource base upon which America's greatness stands.

It is inevitable during wartime that there must be increased utilization, and incident to that utilization, unfortunate destruction and waste of important natural resources. The Izaak Walton League of America, dedicated to sound land and water management in the public interest, has not and will not stand in the way of any needed utilization of our resources for the successful prosecution of the war. It is, however, and will remain ever vigilant to guard against needless waste and destruction.

Out for Duration??

Some people are prone to feel that conservation of natural resources is something that can be dispensed with for the duration. If they will think through on the matter they will realize on the contrary that there is no time when it is more important to continue aggressively on a sound conservation program than during the war period

(Continued on page 25)

The Increased Use of Game As a Food

By

FRANK G. ASHBROOK
and
EDNA N. SATER *



ALL OUTDOORSMEN agree that hunting and fishing are sports, pursued primarily for recreation, although wild animal life sometimes proves essential food. Too often, however, the thrill of the chase is over when the hunter arrives home, puts the dogs in the kennel and racks his gun.

But there should be a still greater thrill in store for him, that of eating his own game delicately and skillfully cooked. The share of food contributed by game to the average table is at present relatively small and it is surprising to realize how few persons in this country have ever eaten game. Sportsmen and conservationists should give greater encouragement to the use as food of all wild game taken legally in season. Game is entitled to a high ranking place in our every day menu. In the "gay nineties" a most judicious use was made of game and it was the food of epicures. But today its proper use is not only neglected but large quantities are wasted because of ignorance and laziness on the part of many hunters. There is still a great waste of game meat each hunting season through spoilage.

Every precaution should be taken by the hunter to make sure his pheasants, doves, quail and other game birds are fit to eat when he gets them home. Quite often during the first few weeks of hunting season for birds there is a large percentage of warm days during which time the birds are apt to spoil quickly unless properly cared for.

It is not good practice to place warm, undrawn birds in the pocket of a hunting coat or bag and pack them around all day. Clots of blood caused by gun shot or partly digested food will taint the flesh and the flavor is spoiled. A practice all too common among hunters is not to eviscerate the birds but throw them in the automobile trunk or in the back of the car and forget them until the destination is reached. These are thoughtless procedures for there is absolutely no chance for the body heat to escape and consequently the delicate meat spoils. Therefore, we say, take time to remove the entrails and cool the birds as soon as possible after they are killed.

Both game birds and waterfowl should be drawn as soon as possible—that is, the internal organs removed.

Rabbits, squirrels, woodchucks, and other small animals should be disembowled in the field soon after they are shot. So when you hunt squirrels in autumn during days that are still warm, do so in the early morning or late afternoon when squirrels are most active. The balance of the day and evening can be used to good advantage in skinning, dressing and preserving the fine quality and pleasing flavor of this meat.

Big game animals must be bled, dressed and cooled properly. How completely the carcass should be dressed, cut up and packed for transportation depends to some extent on the distance it is to be hauled, the time involved in hauling and the temperature. Sloppily dressing a deer, failing to cool the carcass thoroughly, flinging it on the

(Continued on page 28)



* Fish and Wildlife Service, U. S. Department of the Interior, Chicago, Illinois.



Photos by Leo A. Luttringer, Jr.

A Wildlife Library for the Sportsman and Outdoor Naturalist

By Jacob B. Abbott

THIS article will not touch upon rare first editions, crushed levant bindings nor tall-paper, de luxe volumes. It will suggest an all around library for anyone interested in wildlife, the purchase of which will not necessitate putting a mortgage on the homestead nor alienate the purchaser from the little woman's affections for perpetrating imbecile extravagance.

For the man (or woman) interested in hunting there are two outstanding books, accurately and entertainingly written, illustrated in color and black and white by Lynn Bogue Hunt, who knows how to draw and paint game birds better than any living American. "A Book of Duck Shooting," by Van Campen Heilner covers the situation like a blanket; "Upland Game Shooting," by H. L. Betten, should be in the library of any sportsman interested in this field of hunting. Both books may be obtained from A. A. Knopf, N. Y. at $5.00 each.

The indispensible rock on which to found an ornithological library is the late Frank M. Chapman's "Birds of Eastern North America". Get a revised edition. Published by D. Appleton & Co., N. Y. Illustrated in color and black and white by Louis Agassiz Fuertes, America's greatest bird artist. $5.00.

The National Geographic Society's "Book of Birds" in two volumes is almost unbeatable. Nearly all North American species are covered and the accuracy of the text is guaranteed by such authors as Alexander Wetmore, T. Gilbert Pearson, Arthur A. Allen, etc. The illustrations, of which over 900 are in color, are by Allan Brooks which is enough to say regarding their excellence. Hundreds of photographs are also reproduced in the volumes. $5.00 the set; National Geographic Society, Washington, D. C.

If you can pick them up second-hand (they are no longer obtainable from the State House, Boston), and if you want the best that comes, get Edward Howe Forbush's three volumes of "Birds of Massachusetts and Other New England States." They contain in full color perhaps the best work that Fuertes ever did. As this work was unfinished at his untimely death in 1926, Allan Brooks finished out the third volume with paintings of most of the sparrows, all the swallows, vireos, warblers, thrushes, etc. The text is meticulous in its accuracy, yet most readable. The work is practically a complete library of birds of the northeastern United States. You will have to pay more than $5.00 a volume if you are lucky enough to get them—but they are worth it.

If these books prove too elusive you can buy from Houghton Mifflin & Co. in Boston, Mass. (for $3.75) "Natural History of the Birds of Eastern and Central North America", by E. H. Forbush and John B. May. 1939. This book, in one volume, contains Forbush's original text, abridged and revised, and descriptions of over 100 additional species by John B. May and all of Fuertes' and Brooks' colored illustrations which appear in the 3 volume set mentioned just above. This book will identify ar describe for you any bird found in Penr sylvania.

R. T. Peterson's "Field Guide to th Birds" is good to have along for the fiel identification of eastern birds. Many eag bird students consider it a bible. It show clearly some interesting and easily recogni able points of identity and some of M Peterson's little colored silhouettes are qui charming. Houghton Mifflin, Boston. $2.7

For the non-scientist the most readab and best illustrated account of North Amer can mammals is published by the Nation Geographic Society. Originally appearing i their magazine in November 1916 and Ma 1918 as "The Larger North American Mam mals" and "Smaller Mammals of Nort America" respectively, (both written b E. W. Nelson, former Chief, U. S. Bio logical Survey) they were later gathere into one volume, "Wild Animals of Nort America" and published by the Nation Geographic Society, Washington, D. C There are 127 color plates, representin Louis Fuertes' best work on animals—ver accurate and each animal shown with i typical habitat background—and drawing of animal tracks by Ernest Thompson Seto This book is a great buy at $2.00. Mr. Nel son had a gift for combining accuracy o observation with the ability to write abou it most interestingly, a quality that man current writers on animals would do we to cultivate.

In my estimation the nearest approach to elson's accuracy and readability is the te Dr. Glover M. Allen's recent "Extinct id Vanishing Mammals of the Western emisphere", published by the American ommittee for International Wildlife Pro- ction, Zoological Park, Bronxville, N. Y. at .50. By all means include a copy of this your collection of mammal books.

"Fading Trails," Macmillan, 1942, $3.00, is good compilation of facts about North merican animals and birds which, formerly undant, are now rare or vanishing. Well lustrated for the most part by Walter A. eber, this is a book worth owning; one at will certainly sow seeds of conserva- on in your soul if they are not already ere.

As supplements to your nature library ick up any of the Government wildlife ublications that are in print. These are ways good, reasonably priced and may e obtained from the Superintendent of ocuments, Government Printing Office, Vashington, D. C.

Of them all, Arthur Cleveland Bent's "Life istories of North American Birds" are out- tanding—a great work by a fine, pains- aking ornithologist. I believe that Bulletin 76 (Life Histories of North American uckoos, Hummingbirds, etc.) and Bulletin 79, on Flycatchers, Larks and Swallows are till in print. 75 cents for Bulletin 176 and 1.00 for Bulletin 179. Besides being a most nterestingly written account of the subjects, llustrated with excellent photographs of esting birds, the books will undoubtedly nore than double in value. For instance, Bulletin 167, Birds of Prey, Part I, published n 1937 for 70 cents, is now quoted by most lealers at from $4.00 to $6.00.

Farmers' Bulletin 513: "Fifty Common Birds of Farm and Orchard" is a fine little pamphlet. Contains 50 colored pictures of birds by Louis Agassiz Fuertes. 25 cents.

"Food Habits of North American Diving Ducks," Agriculture Technical Bulletin 643, contains fine colored plates and important information. 40 cents.

"Food Habits of Shore Birds," Wildlife Research Bulletin No. 1, is another good one. 25 cents.

"Birds and Mammals of Mt. McKinley National Park, Alaska," Wildlife Survey, Fauna Series 3, is a readable, well-illustrated account of animals and birds of the region. 35 cents.

These are only a few titles picked at random from the government's large list of wildlife publications. If you are interested in other phases of animal life write to the Supt. of Documents, Washington, for Price List 21—Fishes and Wildlife; it's free. Our Federal Government, you know, publishes probably the most accurate information on native wildlife that gets into print—and some of it is excellently illustrated.

Subscriptions to a few of the better wildlife magazines are a valuable addition to an outdoor library. I assume, of course, that you are already a subscriber to GAME NEWS, perhaps the best game and conservation magazine issued by any state and, in my opinion, fully equal to many privately-owned sporting magazines.

For the sportsman *Field & Stream* tops the list. Fine colored covers by Lynn Bogue Hunt and Arthur Fuller and snappy, well-written articles on all branches of sport. Fine big game photographs by Paul J. Fair are often in the book. $2.00 a year. Field & Stream Publishing Co., 515 Madison Ave., N. Y. City.

National Geographic Magazine is a must on any library table featuring outdoor literature. Finely illustrated, well-written articles of universal interest, but with much emphasis on nature. $3.50 a year. National Geographic Society, Washington, D. C.

"Natural History" is supreme in its field. Published by the American Museum of Natural History, in layout, paper and excellence of photography it stands at the top of the heap. Send $3.00 to the American Museum of Natural History, 79th St. & Central Park west, N. Y. City and you will get the next ten copies (none published in July and August). You will never regret it and I'll bet you will never cancel your subscription.

"Nature Magazine," 1214 16th St., N. W., Washington D. C., has fine articles and photographs and is more than worth the $3.00 a year that they ask for a subscription.

Some of the state magazines are mighty interesting. Ohio publishes a corker, "The Ohio Conservation Bulletin," as does Michigan with its "Michigan Conservationist." "Texas Fish and Game" is a mighty interesting magazine, usually with a colored cover and "California Fish And Game" offers good reading to anyone interested in wildlife and conservation.

For the bird enthusiast "Audubon Magazine," in spite of its rather naive and starry-eyed approach, is a good paper and prints many A1 photographs, by such experts as A. A. Allen, S. A. Grimes and A. D. Cruickshank. Some of its articles are apt to be on the enthusiastically sentimental side, but from the size of their circulation I imagine the nature-lovers eat it up. $2.00 a year. National Association of Audubon Societies, 1006 Fifth Ave., N. Y. City.

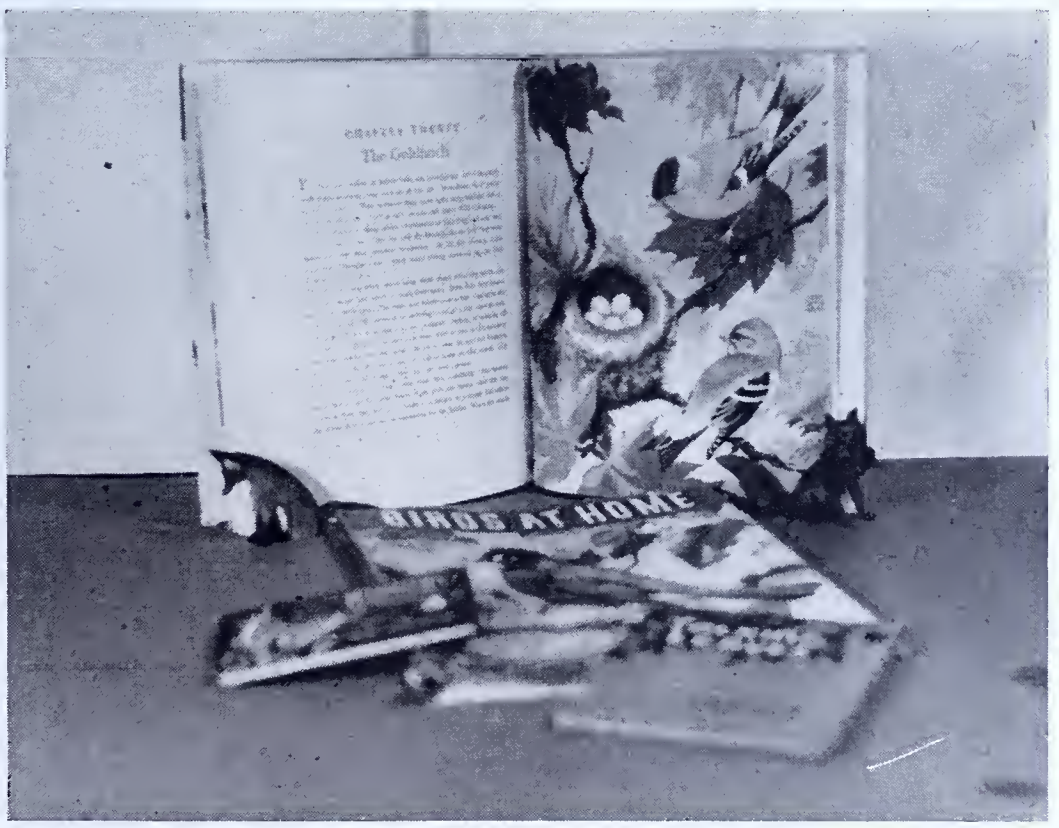
If you want stark, bald facts about birds, buy a Latin dictionary and subscribe to The Auk, the quarterly of the American Ornithologists Union. There is no better bird magazine published on either side of the Atlantic—and I'll include the Pacific, too. A complete run of The Auk offers about the best reference library on North American birds imaginable. Try and buy a set. You will then discover that it is really necessary to put a plaster on the ancestral roof after all. A yearly subscription to The Auk costs only $4.00. You must, however, be proposed and accepted as an associate member of the Union. The magazine comes with your membership.

For a layman's comprehensive view of fishes I again refer you to the National Geographic Society. Their "Book of Fishes" at $3.00, edited by John O. La Gorce, is very interesting and, besides, tells you what you want to know. Salt and fresh water fishes of the Atlantic and Pacific are described and illustrated in color. In addition many other curious marine animals are dealt with in text and picture. Outstanding authorities have written for this book.

For the dry fly purist or the plug or spinner enthusiast there are a number of mighty fine books that will not deal a knock-out blow to the pocket-book. Because the subject is so varied and because fishermen are so jealously partial to their own conceptions of the sport in regard to the species and method of capture, I will merely list a few good books whose titles are self-explanatory:

"Trout," by Ray Bergman, A. A. Knopf, N. Y. City, $5.00. Covers the method and tackle needed for practically all the trout found in this country, as well as land-locked and Atlantic salmon information.

(Continued on page 29)



For younger naturalists.



LET'S TALK TURKEY

By Fred Everett

Sketches by the Author

THERE is something about the mention of Wild Turkeys which stirs the imagination and grips the heart of even the most callous sportsman. The very thought of that magnificent bird rekindles the fires of yearning which have smoldered in every hunter's breast from the moment he has read about the Pilgrim Fathers and Dan'l Boone with his long rifle.

Youth was filled with a sense of romantic adventure as he long gazed at pictures of hardy pilgrim ancestors returning home with a wild turkey slung over his shoulder and Indian arrows whizzing by his head. Gazed and sighed for the good old days when the turkeys filled the woods and could be flushed from every thicket.

And Youth read eagerly all the books about the brave, restless pioneers as they pushed the frontiers back through the wildernesses of our vast land, facing unbelievable dangers unflinchingly, enduring privations and hardships without complaint, battling the Indians, and nonchalantly shooting the eyes out of wild turkeys at a hundred paces just to keep in practice or to save their families from starvation.

To Youth it was romance, adventure, and a deep yearning to have, some day, for at least a brief moment, the same thrills which those fortunate hunters of old must have felt when hunting the turkey. Yet there is a deep-rooted conviction that the wild turkey is more of a legend, an unattainable dream of the mystic past, one of the bounties of Nature which was lost during the creation of our nation.

Yes, the Wild Turkey has become a legend. The stories about its cunning alertness, the keenness of its hearing and sight, the uncanny magic by which it seems to vanish before one's eyes, its highly developed instincts by which it outwits the most expert hunters, and countless other tales of its fabulous nature have built this native king of the game birds into an enduring legend that sets it apart and above other birds. As such, it seems unattainable. Thus Youth, as he ages, turns to more available game and worships the turkey secretly from afar. The yearning is still in his heart but it is buried under his unconscious feeling that it can never be satisfied.

So it is with millions of sportsmen. Only a few experience the great joy of fulfilling their dreams. Possibly the reason is that so few know that turkey hunting can be had in many states, of which Pennsylvania is one.

But, whether he hunts them or not, practically every sportsman has a deep interest in the grand old bird. That is what makes the surprise all the greater, that so many know little more than a few of the legendary sayings about the turkey. Maybe that is why it is such a bird of mystery.

A veil of mystery disappears in the light of facts. Therefore, by turning some of this light on the wild turkey, it should become more real and even more interesting to the sportsmen. And it may revive the yearning to experience the thrills of by-gone days.

Over the years, the belief has grown that the true wild turkey, as such, no longer exists; that it has become polluted with the blood of the domestic turkey. For that reason, many sportsmen "look down their noses" at our present day wild turkey, as though any taint of the domestic strain were poison. They seem to consider the domestic fowl as a bird of another breed, one that kills the sporting gameness in the wild species.

After all, what is the difference between the wild and the domestic turkey? And how can one tell them apart? The popular saying is that turkeys which have a white band on the end of the tail feathers are the domestic, while the wild ones have a light brown edging on the tail. The fact that this is not necessarily true may be a surprise to most, because the average sportsman believes that all wild turkeys are the same, that there exists only one kind. That we have five variations of the wild turkey, with differences in coloring, limits the truth of the saying to Pennsylvania and the other states, mostly in the east and south, where the brown band on the end of the tail is part of the coloring typical of the species living in those states. Such species do not have any feathers with white edges.

On the other hand, some species do have white edges on the tail feathers and also on some of the rump feathers on the back, (those which lie over the base of the tail). In states having these birds, the method of differentiating between the domestic and wild birds must be based on other features, such as body build, coloration of the head and neck, the amount of wattle, size and color of the legs and feet and such features as only a close observer and student of the birds can know and see. Pennsylvania hunters don't have to worry about them because they are not native to this state.

Nor do the sportsmen anywhere have to worry too much about the wild birds being polluted with domestic blood, for, in the beginning, the domestic turkey was developed from one of our native wild strains, the one in Mexico. There is a very interesting story about how the Spaniards, when first they came to Mexico, found a new bird there which the Mexicans used as food for their captive animals as well as to serve on their own tables. The Spaniards loved the flavor of their flesh, so they took many of the live birds back to Spain. The reputation of the birds soon spread throughout the nations of the old world and raising them

became an art all over Europe and eastern Asia.

The origin of the name turkey has two legends. One is that it was based on their call, which is something like "turk-turk". The other is based on the belief that the birds were so intensely raised in Turkey and by the Turks everywhere, that they became known first as the birds of the Turks and later, as turkeys.

When the Europeans began to settle America, they brought with them the domesticated turkey. In reality, they were returning the bird to its native land. But popular belief was and, for the most part, still is, that the domestic breed is an alien from Europe, one that only pollutes our true native bird.

Years of domestication and selective breeding had changed the bird in many ways; in coloring, size, shape and habits. They ran from pure whites to the bronziest of bronze. And they had lost most of their wild instincts which hunters call gameness. Thus, a taint of domestic blood takes away some of the sport of hunting the bird because they are not so wild or so alertly cunning. Each hunter wants to believe that he has had the thrill of mastering the wiliest, gamest bird alive—a pure wild turkey.

While dreaming back over the days of yore, when the pioneers first came into this land of plenty, one visualizes vast expanses of cover which is teeming with game. He sees turkeys in huge flocks, literally filling the hunting grounds to overflowing. The fact that nature can neither produce nor sustain such populations does not limit the visions.

There were plenty of birds which soon became real game because, due to increased hunting, they were so hard to outwit and bring to bag. As civilization spread, the natural habitat of the birds grew smaller and smaller until, in many states, the wild turkey became extinct—there was no place for it to live. Turkey hunting was fast becoming a lost art. The grandest of all game birds, a truly great native American, was on its way to join the passenger pigeon and other species which now belong only in the pages of history.

A few years ago, some of the sportsmen and a few of the conservation officials suddenly awoke to the dangers of the situation. Some said it was too late, that already only a mixed breed of wild and domestic turkeys was left. The true, wild turkey was extinct. A loyal minority held to the faith that, in isolated cover, where the domestic strain could not penetrate, some of the real stock still lived.

These birds have been carefully, jealously guarded and allowed to increase. Some have been transplanted into new covers; even into other states where eager conservationists are fighting to give back to Nature's covers, one of her favorite offspring.

Out of the valiant fight to save the beloved turkey, many controversies have arisen. Of all the turkeys located in the various states, which ones are the truly original strain? In each State there are champions who discourse long and loud to prove that only in their covers are to be found the pure native wild turkey. Each authority differs in his beliefs as to what constitutes the real characteristic of the original wild strain. In each case, his description tallies with the birds in his covers. So each one, according to his own lights, is justified in calling the turkeys in his State the original strain. No doubt it is—for his State—because environment will, in time, create definite characteristics in the creatures which inhabit it, characteristics that may be slightly different from what that creature would have if it lived in any other environment. Were that not true, we should never have had evolution, the creator of so many different forms of living things. Even the wild turkeys of Mexico, when domesticated, would not have changed so quickly and drastically in shape, color and habits.

What is of much more interest and importance to the sportsmen is the fact that the movement to save the turkey spread and grew into a full-fledged campaign by individuals, clubs, state and federal authorities. In spite of minor differences of opinion, cooperation and pooling of experiences and methods bids well to assure the future of the bird and the sport of hunting it.

The success of the venture, to date, has been outstanding in the zeal with which it has been attacked but only fair in the results achieved. The goal has been, not only to raise the turkeys in sufficient numbers to restock the depleted covers, but also to retain the true wildness of the birds.

So far, it has been a battle of averages mixed with compromise. To gain one of the goals, it has been necessary to sacrifice the other. An abundance of birds can be had only at the loss of wildness. To maintain their gamey habits, only a few birds can be raised each year. At present it boils down to the question, which is the more desirable—lots of birds easy to hunt or few birds that only a master hunter can bring to bag? Which is the greater sport?

When you go out hunting, which would you rather have—enough birds in the cover so that you will have a fair chance of getting one, although it is not a pure wild strain, or less chance of smelling the deliriously satisfying aroma of the crispy brown roast on your table in order to match your wits against those of the craftiest bird in the coverts? It is the age-old problem—meat or sport? What a perfect answer when it can be both!

Many of the legends about these birds are true or, at least, based on fact. Their instincts are so highly developed, their eyes so keen and their ears so sensitive, that it is practically impossible to stalk them or, in most cases, to lie in wait and ambush them. They must have photographic memories because, when coming to a spot in their range, they seem to instantly detect the least change in the area. Simply moving a log or putting up a bit of cover is enough to make them stay away at a distance, to examine and usually to steal silently away into other cover.

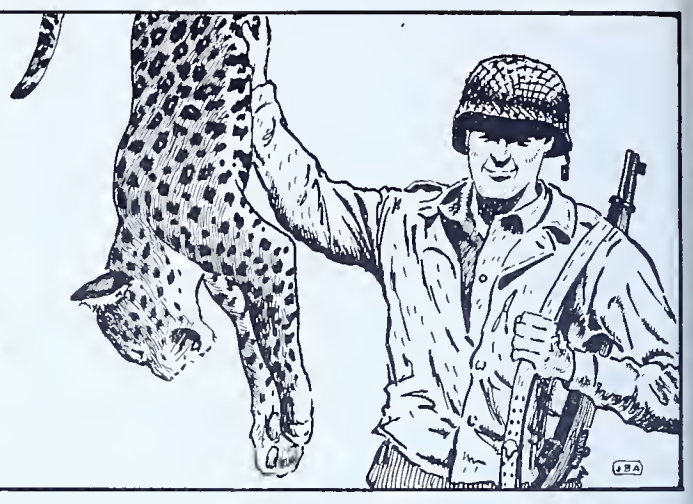
I found ample proof of this, much to my sorrow, while trying to hide near favorite feeding grounds, hoping to study the native birds in their own homes, to see how they act and to make sketches of the various attitudes they assume while eating, walking or running, fighting or any other activity. I arose long before daylight, shivered through the cold, long trips, lay motionless throughout the chill morning and all day with scarce a movement, day after day, with the calls of approaching flocks plain to hear—but not a turkey did I see. The guide said it was

(Continued on page 31)





With Those in The Service



"I suppose everyone including yourself has, by this time, given me up for lost. But I'm not really. Been in London since May 26. We have a fairly nice flat but we pay a tremendous price for it, £60 a month, or the present rate of exchange about $240, plus electricity and telephone. However, the government allowance pays most of it and



Pfc. Delbert Batcheler
Division of Public Information

its better than living in a government billet.

"I've gotten around to see quite a few of the historical places and other things of interest. I've seen London Bridge and London Tower and have had the history of the whole thing explained to me. I've been to Madam Toussard's Wax Museum where they have life size wax images of all famous people of past and present some of which are very fine and realistic looking. I've been to the buildings of Parliament and have seen, but not been into, Westminster. I've visited the Fleet Street section where all the newspapers are, and Kew Gardens which is quite a famous and beautiful park. I've also flown over a great deal of the country and that's where you really get the view. Gosh what the Game Commission would give if they could get the farmers to keep hedgerows like these people do. Aside from being useful it makes a beautiful picture from the air.

"There's one more thing that most of you back home are interested in, and that's the 'Buzz Bombs'. Well, I sweated through the whole seige and let me say when it comes to those things I'm not very brave. You're so darn defenseless against them, and they really are terrifying. Any one who says he isn't afraid is either a liar or crazy. When these things were at their height and we had alerts by the dozens each day, you'd hear the buzz begin. It would grow louder and louder and then you'd pray it wouldn't shut off until it got 'way out in the country somewhere. But it always did and then you'd hear the 'whistle' or the 'swosh' as it zipped by your window and you'd just pull something over your head and hope the glass wouldn't cut you up too much. Then all of a sudden came the terrific crash and the old building would shake; but if the glass didn't tinkle you'd know it was pretty far away and you'd just about get your stomach back where it belonged when you'd hear another start, and so it went all day and all night."—Captain Henry Schell, S.S.D. Hq. E.T.O. U.S.A., APO 887, N. Y.

"I just received the summary of open seasons and bag limits. It was addressed to the naval base at Portland, Maine, so it seems that I have been negligent in keeping you informed of my whereabouts. I stayed at Portland for only one month then went to a port on the east coast to await my ship. I was lucky enough to be granted a leave from there before getting assigned so I spent ten days at home. From there I was sent to a port on the Mississippi River where my ship was being prepared for commissioning.

"There certainly is some good hunting and fishing along the Mississippi. When I first arrived in that territory I spent nine days in the Marine Hospital with a strep throat infection. Later I was given a five day convalescent leave which I spent in the bayou country of Louisiana. I did some crab and crawfish fishing. The people I stayed with made what they called a "gumbo". This is sort of a soup made of crabmeat, potatoes, and a lot of seasoning. It sure tastes good. The land was all swamp with low brush and an occasional cypress tree.

"There are quite a few oaks hung with Spanish moss. These oaks make a picturesque sight. There was evidence of plenty of small game. It seemed as though quail were calling from each acre of brush, and there were a lot of rabbit signs around. The violators were very thick in that back country. All the folks carry some sort of firearms in their car and shoot at anything.

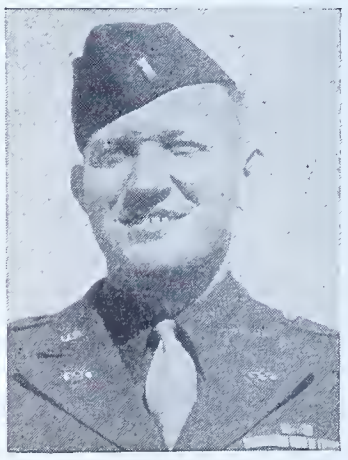
"That state doesn't have its sportsmen educated to the fact that they are hurting themselves when they violate the game laws. Of course, it would be a hard job educating some of those bayou men.

"I can't tell you anything about the ship except that I think it is pretty swell. I am sitting on the fantail so I hope you can read this scribbling. I'll try to send you another letter soon."—Harry DeFina, U. S. Coast Guard, USS Bath, PF 55, c/o Fleet P. O., New York.

Two most welcome visitors surprised the office force recently, one, Martin Shaffer, having returned from two years service in French Guiana, South America, to which place he will return at the termination of his furlough; the other was Fred Myers, home on a short furlough from Fort Bliss, Texas. He expects to return to Camp Van Dorn, Mississippi. Both fellows looked "fit as a fiddle." S/Sgt. Shaffer was formerly on special duty in Division G and Lt. Myers was Game Protector, Land Management, in Clinton County.

* * *

Your Editor had a surprise telephone call late the other evening from Lt. Nicholas Rhua. Nick had flown home on a short furlough prior to leaving the country and got stranded at a local airport. However he managed to get a lift the next morning early back to his base in Childress, Texas. He asked to be remembered to all his friends.

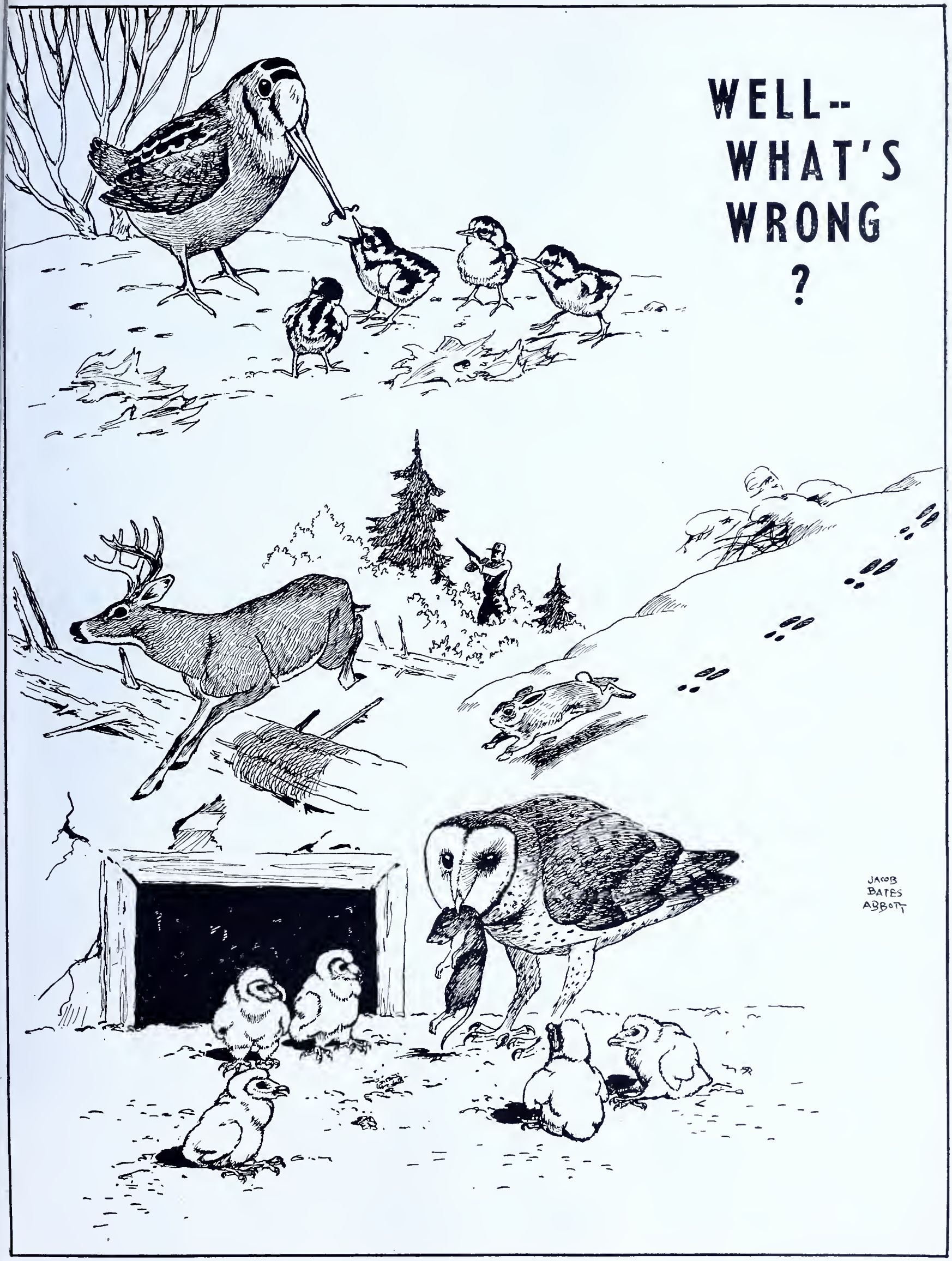


Lt. Robert McDowell
Division of Propagation and Research

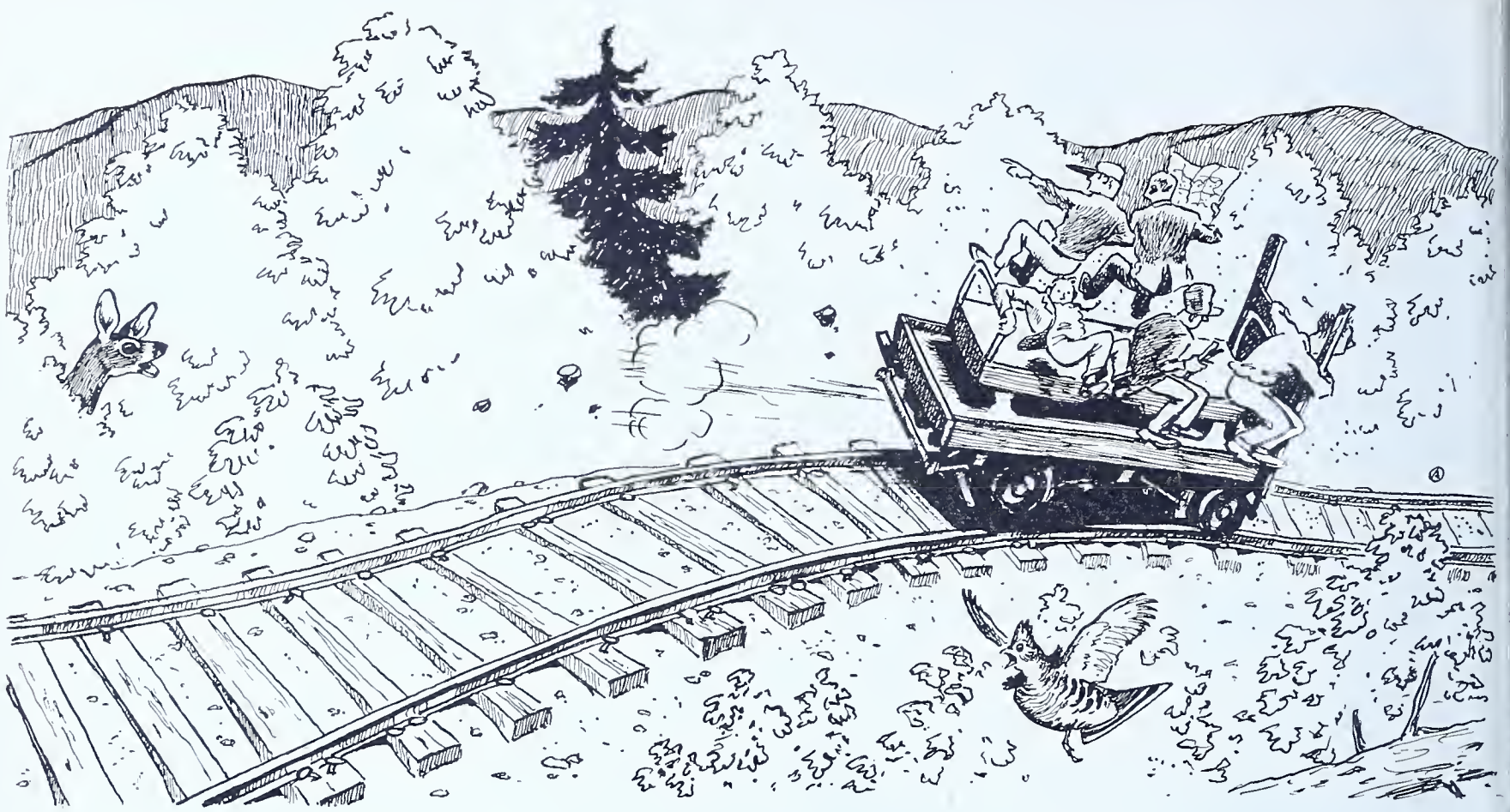
In the article I wrote for the April issue of the GAME NEWS on "Shooting in Britain" —I neglected to mention the wood pigeon which furnishes excellent sport in England, Scotland and Wales. It is bluish grey like our dove but is a much larger bird, being somewhat heavier than that domestic pigeon.

It is frequently shot in the borders of grain fields while flying toward the woods where it roosts and nests—and a good shooting stand is on the edge of the woods nearby a field where the birds are feeding. Like our dove it will not lay for a dog and flushes on the approach of the hunter—presenting a

(Continued on page 30)



If You Are Not Quite Sure Better Turn To Page 31



A Rocky Ride Up Stony Creek

By Jacob B. Abbott

Illustrations by the Author

YOU HAVE probably read of the Uganda Railway in British East Africa, the building of which was held up for several weeks by man-eating lions; you have no doubt seen some of the late Martin Johnson's unrivalled movies of African wildlife, taken as he jolted over the veldt in an especially-equipped truck. Both of these treks through game-filled wilderness pale before the recent venture undertaken by Commissioner John C. Herman, his son Jim, and the still-shaken writer, under the escort of Gard. Conklin, intrepid Chief of the Division of Lands, Pennsylvania Game Commission.

We embarked at the little Dauphin station of the S. & S. Branch of the Reading Railroad. The vehicle which was to take us, on the rails in front of the station looked harmless enough, yes, even gentle, as it sat there motionless in the sunlight. We were later to discover its capabilities for commando work in action. For descriptive purposes this four-wheeled contraption was a combination jeep and handcar and was manned by a crew of two experts: C. E. Rhoads, "engineer" and R. L. Beaver, "conductor." No tickets were taken but we signed away our lives in releases to the Reading, absolving them from all blame if any of us was brought back in a basket. We climbed aboard the center platform seat, after stowing away lunch, cameras and other paraphernalia underneath and a couple of lusty cranks by the engineer started the putt-putt-putting of the gas motor. With a lurch we were off up the winding, bouncey track that runs some twenty miles through the valley to Gold Mine Station. To the writer, clutching an iron rail for dear life, the experience was comparable to twenty-five rides on a roller-coaster, but the scenery was considerably more attractive than fleeting views of hot dog stands and other carnival concessions. As our juggernaut hit uneven rails or went over switches we involuntarily left our perches and sailed through the air in seated positions to be met and bounced by this railroad jeep as it rose to contact us at more distant points. Commissioner Herman was perhaps the most nonchalant of all—maybe his trout-fly-decorated ski cap gave him courage—pointing out spots of interest and waving the topographical map in the most care-free manner. As far as I know he wasn't holding on to anything. Major Conklin was a close second in coolness, but he was a "ringer," a veteran; he had made the trip twice before.



Stony Creek Valley, well-named for the countless boulders strewn through its wooded slopes, lies between Second and Third Mountains of the Blue Ridge. As we hurtled along the waving rails a mixture of hardwoods, interspersed with a few pines and hemlocks, flashed by (at 15 miles per hour) on either side and as we penetrated deeper into the valley the timber grew larger until we were going through tracts of practically virgin forest. Stony Creek runs down the floor of the valley on the south side of the track, but hidden from view by the thick stands of hardwoods. Commissioner Herman, who has fished this creek up and down, speaks well of its trout. The blue rampart of Second Mountain showed on our right just above the tree tops as we chug-chugged along this steel trail through the woods.

(Continued on page 27)

OUSTED!

A companion and I, out one morning last November to enjoy a day of small game hunting, were walking, shotguns in hand, through a large open field in southern Pennsylvania, when on the horizon appeared a typical country woman, attired in a large blue bonnet, rather short blue dress and high-top shoes. Upon seeing us, she walked hurriedly toward us and asked, rather unpleasantly:

"Have you permission to hunt on here?"

"No," I replied, trying to be courteous, "Not seeing any signs, I didn't think that was necessary."

"Well, get out. Over there's the nearest way out," she directed, pointing to a fence in the opposite direction from where we were headed.

"All right, we'll go," I agreed, "But our car is down this way."

"I don't care where your car is; that's the nearest way out," said she, indicating a point which would take us about a half mile out of our way to the car. As we could do no noticeable harm, we continued our own short way out.

"I'll walk right along out with you and see that nothing happens," she said as she walked closely beside me, shaking her head suspiciously.

"You don't trust us very far, do you?"

"No I don't," she replied, "I don't trust anybody."

As she walked along, she grumbled constantly.

"Look at you! You don't even have your guns on your shoulders," she challenged.

Both of us immediately unloaded our guns, and continued toward the fence, the woman keeping right with us, scolding fluently.

"What do you mean by coming on private property?" she growled.



"I didn't see any signs, or we wouldn't have come on."

"The signs are up, all right. Anyhow, a lawyer told us we don't need any signs up."

"Oh, but I believe you do. I happen to be a representative of the State—"

"Aw, I heard that before. But that doesn't give you the right to hunt on here without permission."

To that I agreed, although I had all morning been intermingling official duty to some extent with pleasure, as I held a commission as Deputy Game Protector.

"A game warden," she continued, sarcastically, "coming out and trespassing on people's property."

"But lady, what harm are we doing, just walking on this grass field? We live in the town just three miles beyond. And we don't chase you country people off our pavements when you come to town to sell your produce."

"Well, pavements are public."

"I wouldn't chase you out of our backyard in town so long as you did no damage."

She merely shrugged her shoulders.

All the while, my hunting companion maintained deep silence, apparently content to let me do the talking, even though I was not getting anywhere except out of the field.

We reached the top of a little hill, from which we could see the road.

"Our car isn't there," I remarked, as I failed to see it.

"Was that your car over there? Huh! He's been tootin' for you for the last half hour. I guess he went and left you. I hope he did. Now you'll have to walk home."

"Dog-gone, he's gone," I sighed. "You couldn't lend us a car to go home, could you?"

"WHAT?" she roared.

"Can't you lend us a car to get home?"

"I wouldn't lend you a car if I had a dozen," was her obliging reply.

My friend's license was issued in County No. 21 and mine in County No. 22. She dropped back a step, to get a look at his number.

"Your number is 21. And yours," said she, looking at my back, "is 22. Uh, huh." As our real identification numbers ran away up in the thousands, my companion suppressed his laughter with extreme difficulty.

At last we reached the fence. The woman stopped and stood, disgusted, watching us crawl over.

"Well," I called to her as the ousted hunters climbed the fence, "come in to our town, lady. We won't chase you out."—*Anonymous.*

Conservation Law Enforcement Chiefs Association Meets

The Conservation Law Enforcement Chiefs Association held its Third Annual Conference at Forked River, New Jersey, on September 18 and 19, presided over by Harry E. Cudney of New Jersey, its President.

The Association, comprised of thirteen states along the Atlantic seaboard, meets annually to study and discuss law enforcement problems common to its membership.

Eleven states were represented this year by the following members: Harry E. Cudney, President, New Jersey; Henry A. Teal, Vice President, New York; Harold N. Gibbs, Secretary-Treasurer, Rhode Island; Ralph G. Carpenter, 2d, New Hampshire; Howard S. Willard, Massachusetts; Daniel T. Malloy, Maine; Thomas E. Rose, Connecticut; W. C. Shaffer, Pennsylvania; R. S. Harris, West Virginia; Richard T. Norris, Maryland, and C. J. Dowers, Vermont.

Particular stress was laid on post-war enforcement planning on this year's agenda.

Addresses were made by Former Governors Harry A. Moore and Harold Hoffman of New Jersey. Brigadier General Homer Groninger also spoke at the Banquet.

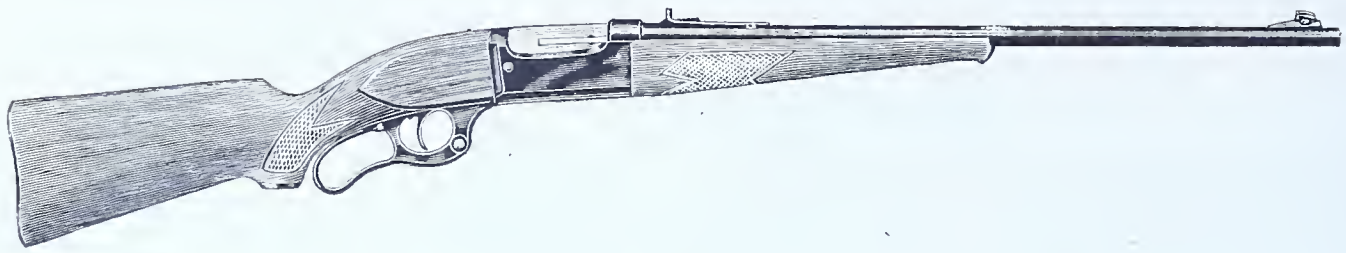
Officers elected to serve for the ensuing year include, Henry A. Teal, of New York, as President; Harold N. Gibbs, Rhode Island, Vice President, and W. C. Shaffer, Pennsylvania, Secretary-Treasurer.

The Hon. John A. White, member, New York Conservation Commission, and Seth Gordon, Executive Director, Pennsylvania Game Commission, were unanimously elected to honorary membership. Honorary members previously elected are: Dr. Ira N. Gabrielson, Director, U. S. Fish and Wildlife Service, Chicago, Illinois; Hon. Frederick C. Walcott, President, American Wildlife Institute, Washington, D. C.; Hon. Ross L. Leffler, President, Pennsylvania Game Commission, Pittsburgh, Pennsylvania, and Hon. Geo. C. Warren, Jr., President, Board of Fish and Game Commissioners, New Jersey.

The next annual meeting will be held in New York State.



Game Protector Arthur Logue with large bear caught in old-time steel trap outlawed long ago.



YOUR RIFLE AND YOU

By Herbert E. Stover

ONE of the finest things about a rifle is the loyalty it inspires on the part of its owner after he has used and proved it over a time. Long ago, when the pioneer would not have felt fully dressed without his long barreled flintlock, he took to naming his weapon. We remember "Killdeer" in Cooper's Leatherstocking Tales and Davy Crockett's "Betsy" which had been presented to him by admirers. This pride of ownership works for efficiency in shooting. Confidence in one's weapon results in good aiming.

So, when one discusses rifles, he is treading on a sort of holy ground and reactions to mistakes or mis-statements are met savagely. One is expected to believe the most extravagant claims about the hunter's favorite. Not long ago a man assured me solemnly that he had shot and killed a huge bear at 476 paces with his 30/30 rifle. He was quite firm about it and, of course, it could have happened. There are white blackbirds but they are rare. Another insisted that his 250/3000 would outshoot the 30/06 government cartridge. One admires the loyalty of such men while not caring too much for their veracity. It's the old story of "my Pop can lick your Pop."

We are just about through the stage of the great controversy of bolt and lever action fans. It is fading out of the sporting magazines and is no longer the theme of violent argument in hunting camps. Soldiers, returning from World War I, gave a tremendous impetus to the use of bolt action rifles for sporting purposes. Rifle manufacturers responded to popular demand, producing some of the finest precision weapons of all time in calibers whose breech pressure would have wrecked the actions of lever and trombone arms. Calibers like the .270, the .257, 7mm, and 30/06 showed new "highs" in efficiency, in accuracy, and striking power. The bolt action is here to stay. It is certainly the strongest by long odds, and the surest in extracting the fired case. It is simple and can be completely dismounted without the aid of tools. The fact that it can be cleaned from the breech, doing away with the chance of injuring the muzzle of the rifle with a cleaning rod, is another strong vote in its favor.

The lever action is perhaps the oldest of magazine rifles that have come into common use. The movement of the hand and wrist is here a natural one and, after the spent shell is ejected and the chamber reloaded, the hand is back into position to fire the arm. The lever is, perhaps, twice as fast as the bolt in getting off the second shot in the rare cases where such fast shooting seems necessary. A fine impetus was given this type of rifle when the great rifle companies produced some new weapons. Savage came out with the Model 99 R and RS in calibers 250/3000 and .300. Winchester changed the excellent Model 1894 to the Model 64, clinging to those popular calibers, the 30/30 and .32 Special. This weapon is extremely well balanced for quick accurate shooting and is the easiest of all rifles to carry under the arm or in a saddle. Later Winchester changed the 1886 Model to the Golden Jubilee Model shooting a new and powerful cartridge, the .348. This and the Savage .300 are now the most powerful in the lever action field.



Winchester Model 95.



Winchester Model 1894.

A third popular action, the trombone, has fewer devotees than the bolts and levers but they are almost fanatical about the Remington slide action, particularly in .35 caliber, though it is produced in two other lighter calibers. The popularity of this action is easy to trace. The man who shoots the pump shot gun hunts through the small game season then picks up the slide action rifle and finds it works just like the shot gun. He feels, and rightly so, that he has had a lot of good practice for his deer hunting. Charges have been made that this action jams. Well, they all do. The thing is to operate any rifle with decision. "Slam" the lever or bolt or slide and you won't have many jams. There is no doubt that the Remington is a real killer and, in spite of its low speed, is one of the most accurate cartridges in its range.

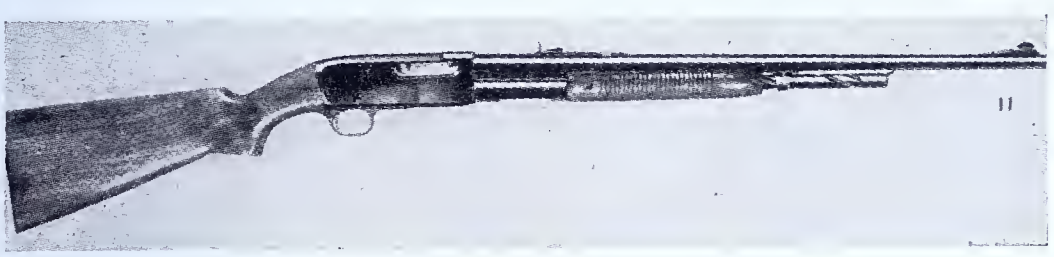
The vast range of rifle calibers presents a most fascinating study. Cartridges were being produced up until World War II for practically all weapons made since Civil War days. No doubt this list will be sharply restricted after the struggle is over. Most calibers now in use have had an evolution dating to black powder days. The 1895 Winchester, the homeliest and nicest shooting rifle produced, was turned out in many calibers. Finally, before it was discontinued not long ago, the arm was made only in caliber .30 Army or, as we know it better 30/40 Krag. The .348 caliber was evolved from the .33 which in itself was the survivor of a long list of calibers in which the 1886 Model was made. The man who buys a modern sporting arm can be sure that his gun and the ammunition for it are the result of years of development and testing.

Savage proceeded a little differently. Its two heralded calibers were developed from scratch. The 250/3000 was produced to show what really high velocity could do with a small bullet of 87 grains. It was a sensation and, with the new 100 bullet, is still one of the world's finest calibers. The .300 is unique. By using certain powders and a sharp shouldered shell, you have a cartridge almost as powerful as the 30/06 without its

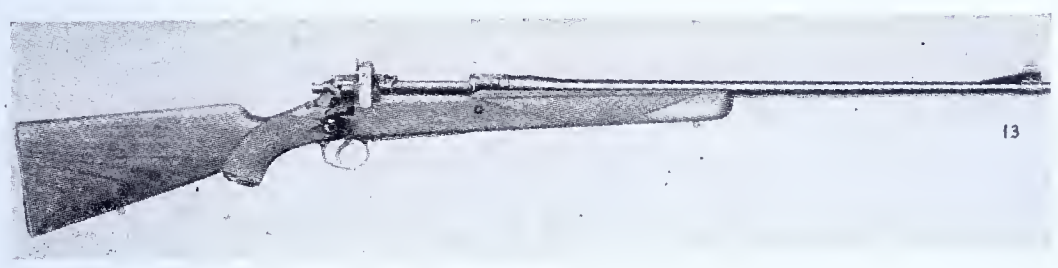
ear splitting bellow and heavy recoil—a cartridge, too, that can be used in a lever action safely and efficiently.

The man who buys his first rifle finds it hard to make up his mind. He must secure a fire arm adapted to the game he wishes to hunt and to himself as well. The beginning deer hunter finds rifles of the 30/30 class by long odds the most popular, particularly in a light neat carbine. I continue to believe these calibers and the sawed off gun are the prerequisites of the experienced hunter who knows how to stalk and place shots at game in vital areas. Certainly no lighter calibers should be used on Pennsylvania big game. Hal G. Evarts, the novelist and a great hunter, was asked what caliber rifle to use for deer. He replied: "Go down to the boys on the forks of the creek and ask what they use for moose. Use that for deer." A man should be overgunned rather than under. He should select the heaviest caliber he can handle efficiently. I believe he will find that caliber in the class of the 30/40, the .300 Savage, 7mm or .35 Remington because here is power without too much recoil.

This last is a bogie that haunts some men but which will disappear with practice. It is the roar of the big guns that disturbs, not the backward push. One of those dinky carbines can slam you worse than a properly stocked 30/06. I have just one rifle that really kicks, an old Savage Model 99 Featherweight in caliber .303. The action



Remington "Gamemaster" Model 141.



Remington Model 30S, bolt action Express.

is smooth as silk, the little rifle comes up like a flash but, sometime in its checkered history, somebody shortened the stock. Every time I shoot it at a target it goes after my chin like a really good welterweight. Don't think about recoil but keep your thumb out of the way so it can't be jammed against your nose when you shoot the 30/06 or the .348. To test recoil, last fall I "sampled" a twelve gauge shot gun knowing its recoil was about 22 foot pounds as against 19 for the 30/06. I used a heavily loaded shell, sat down, selected a stump for a target, and let the old gun float in my hands. Well, I was surprised but certainly not hurt. It sent my shoulders almost back to the ground and the muzzle kicked a good two feet into the air. Recoil may frighten you but it will not necessarily hurt anything but your feelings. Forget the roar of the big guns if you insist on shooting them.

We have not considered a certain class of rifles that is extremely important. It is headed by the 30/06 which, somehow, I have never learned to like. From it Winchester evolved the .270 which I would class as the most amazing of widely used rifle cartridges. With it you will get a greater percentage of one shot kills than you will with any other rifle caliber. It has an amazing 100 grain bullet that goes down at about 3600 feet per second. Shoot it at a stone and hear the slap of the bullet before the report of the weapon. It is most efficient with its regular 130 grain bullet. A lesser edition of the same thing is the .257 evolved from the 7mm. The man who wishes power without recoil can select the .257 or the 250/3000 which is almost identical. But, do not shoot through brush with either of these enterprising .25 calibers. The fast bullet will mushroom on a twig.

Once you have selected a rifle, cleave to it and cherish it. Practice as much as your pocketbook or the present shortage of "fodder" will permit. Once your gun is sighted in, never change the setting of that sight. Use only one bullet weight. Different bullet weights are like the strange women of Bible times, invariably they will lead you astray. You will want to do some shooting at a target, but don't get into the habit of aiming too long. You can't do it on game, because it will be in another county before you're ready to fire.

Practice this way at lot. You can do it in your room. Select a mark on the wall, keep your eye on it, bring up your rifle. The moment the bead, rear sight and mark are in line, press the trigger. Remember, one keeps his eye on the game, the rifle is brought into the field of vision. Look at the target, not at the gun. If you cannot get the rifle in line have either your sights or your gunstock changed. Things must fit. You can get by with a hat that is wrong size but not with a game rifle.

Having practiced a little on targets, and having done a lot of "dry shooting", go out and do a little "plinking," bearing in mind that you must always have a backstop for your bullets. I went out with an experienced hunter one day. He was using a Model 1895 Winchester in 30/06 caliber and he was one man who was master of that cartridge and its vagaries. He shot at rocks, covered with lichen patterns, at stumps, at a rusty can floated on a swift stream. His practice gave him skill at shooting at game with a forest background. It was lovely to see how rapidly and smoothly his rifle came up and was fired before he seemed to aim. If you have a dozen cartridges for this fall, use three of them "plinking." It will pay dividends when the buck leaps later.

I maintain that you should do something to your rifle; change it a little, or equip it differently. My pet "yen" is for barrels cut to twenty-two inches and fitted with long ramps. The change will make the gun really belong to you. You may select a good peep sight, a sling or carrying strap. Perhaps you will have more checkering done or have what is there deepened. If you buy the peep sight, here's a suggestion: take out the disc with which it is fitted, and put the disc in that pocket of your hunting jacket which always has a small hole. When the disc is safely lost you will find you are the gainer by a new type of aiming. You will simply use the front bead and your eye will center in the big ring that formerly held the disc.

Illustrative of the matter of changing your rifle. Recently I took some work to a blacksmith. The old man was a famous hunter and an excellent craftsman. When he finished my small job I said, "They tell me you once made a gun."

He shook his head. "No, I just changed one 'round." He took the weapon from a closet and placed it in my hands. It was one of the first Model 94 Winchesters in caliber 30/30. The weapon had been equipped with a full length magazine which the smith had shortened to half. He had made a new pistol grip stock of unusual walnut and had bent the lever of the rifle to fit the new stock. The checkering was deep and still sharp after years of use. Seldom have I held a rifle that had such fine balance as this old one. The front sight was a silver barleycorn like those on old muzzle loaders. The craftsman was standing by, his eyes warm with my praise of the weapon.

"How many deer have you killed with it?"

He shook his head. "I don't just really remember but I did kill nine bears with it."

Nine bears! He had hunted the high hills near his home for many years. I knew from others that once the shot that finally dropped a wounded bear had been fired with the muzzle of the rifle thrust into its mouth. That rifle was a part of the old hunter. It had been fashioned with loving care. It is beyond price for now when he is too old to follow the rough trails, it can bring memories of great adventure back to him in the dusty narrowness of his shop. Not many of us are craftsmen like this smith, but a little change will make our rifles friendlier pieces to us.

Now that you have your rifle and have practiced, you will be very careful with it. Remember that even a .22 is dangerous at a mile. When you drive into the high cold hills you will have the rifle in its case and nothing will tempt you to carry it loaded in the car. You step out with the others and turn the muzzle of your rifle

(Continued on page 30)

HIGH STAKES

By Clarence F. Walker

Photographs by Lindsay M. Griffin

THERE will be, perhaps, no quarrel with the simple statement that the disappearance of the chestnut from the forests of Eastern United States has influenced adversely the problems of game management more than any other single factor, or any combination of factors. This will immediately be apparent to any one of the thousands of sportsmen who remember, with some pangs of retrospection, the enormous crops of nuts which littered the forest floor almost everywhere.

The wide distribution of this tree along with its inherent propensity to produce large crops annually precluded any thought to the matter of winter food. Naturally the chestnut concerned largely the bear, deer, squirrel, grouse and wild turkey. High in food value, widely variant in size, and found in the most remote forest areas, it gave to all forest game complete assurance of sustaining food during those periods we now regard as dangerous ones.

Obviously, the disappearance of the chestnut from the Eastern United States is nothing short of a calamity. It poses question after question and argument after argument regarding the maintenance of our game supply. Complete protection, intelligent stocking, regulated shooting and even closed seasons have not and will not fill an empty stomach. Trials and experiences have shown that optimum game populations are predicated, primarily upon the ever fundamental principle of food and cover. Omit either or both of these factors and any program of game management begins a vicious toboggan slide down-hill. And, you may be sure, recovery will be in direct proportion to the degree of food and cover available in any particular area.

It is patent that a tree so highly valuable to so many of our game species ought to have the benefit of every attempt in its rehabilitation. There is no assurance, of course, that we shall be able to recover the chestnut to anything like its former, all-dependable position. On the other hand there is no assurance that we cannot in part, at least, produce a tree which will have some measurable value in our game management program.

With the disappearance of the native chestnut (Castanea dentata) we began to appreciate the principle that, "blessings brighten as they take their flight." We began really to be concerned about something we were about to lose. Along with our alarm came limited attempts to secure stocks to replace our dead and dying trees. The writer is in no position to say how extensively this work has been carried on, but there is no indication that it has been or is being done in anything like the proportions its importance deserves. In any project where the stakes are so high, the reward so rich, there should be no limit to the effort in securing, at least in part, what we so desperately need.

Within recent years there is evidence aplenty that much of the efforts given to chestnut culture has come to an unhappy ending. This is particularly true as it concerns interested individuals who, upon the promise of the less scrupulous, proceeded upon the premise that successful results would follow the establishment of certain stocks or species. Even now, more than a few sources are willing to sell seedling stock advertised as "blight resistant" or "blight free" and further append these adjectives with promises of breath taking proportions. Of course, we have "blight resistant" strains but the *degree* of that resistance is all important. If it is "blight free" one had better seriously investigate because that's really the one plant specialists are searching for. However, any such form of advertising has had the ill effect of destroying the continued interest of many individuals, and of creating the impression that the task ahead is an impossibility. This is not true! As the experimenter will learn, his losses and his disappointments may be great, but there is always the promise of good and better things ahead.

It might be of value and interest to examine some of the fundamental principles which will always have to be kept in mind in plant development. Even an elemental understanding of plants will permit the experimenter to foresee, in a measure, just what to expect. It will also explain to a great extent why losses had to be accepted, or even looked for. Anyone who is unwilling to take the time and trouble to understand something of the characteristics of plants is ill equipped to help develop them.

If we were to take a handful, a bushel, or a ton of nuts, plant them and await their development into little trees, we would find, upon close examination, that *no two of them are exactly alike*. One must be impressed, for example, by the difference between the ability of one or more to grow rapidly. Then there are those which have a tendency to distribute their branches neatly around the trunk while a host of them may arrange their branches very untidily. Others will grow quite upright while a companion tree will exhibit a profound tendency to spread, resisting every attempt of the owner to send it upright. This might well be true of seed collected from a single tree. When we deal with seed we traffic in character. Character is the result of experience and this experience is indelibly written into every seed of every single plant.



The author with a branch of healthy fruit, filled to the bursting point.

If the resulting seedlings differ manifestly, how true it is that this variation exists also in those factors which are not visibly apparent! Of course, one cannot *see* the tendency of a tree to bear fruit early and prodigiously; one cannot *see* the limit of hardiness a tree will exhibit; one cannot *see* the tolerance to disease a tree will sooner or later manifest. And yet these tendencies and tolerances *do* exist in any seed we choose to plant. And since the life experience of any plant cannot in any case be identical, the records of these experiences which are registered in the seed cannot be identical. This phenomena produces the factor of variation. And this factor of variation does make the study of plants a most fascinating one. To sum it all up we can encourage, by selection, those characteristics we deem ideal and by the same process we can eliminate those whose characteristics we feel are undesirable. Thus by the process of selection we can move more or less slowly, to be sure, toward our ultimate goal.

Hybridization, which is the inter-breeding of varieties or species, is widely employed to produce new forms of plant life, but its use is limited to those who have a deeper understanding of plant physiology. Here the plant breeder will cross various subjects with a view of "fixing" or intensifying one or more characteristics, or he may attempt to introduce new tendencies into his subjects by uniting them with characters which exhibit opposite tendencies. But—and this is important—whatever crosses he has made, whatever thought and study he has given to the uniting of his few or many subjects, he will find the results of his efforts *registered* in the seed and he must proceed from this point. To carry these efforts to a successful and happy conclusion involves a great deal more than these few lines might indicate. Because of the necessity of a complete knowledge of plant physiology it is likely that very few of the thousands



View of part of the grove.

interested in plant development are equipped to carry on in this way.

Since nut trees are wind pollinated, they are in essence Nature's hybrids. For this reason they will show wide variation in many characteristics. Indeed, chestnut seedlings show remarkable variations and, because of this natural tendency, they become both plastic and valuable material for the most elemental of plant developers. And who among us has not, on many an occasion, done some plant improvement work, even unconsciously? Witness the most humble farmer *select* his seed corn, seed potatoes, tomato seed or any of a dozen other crops. He is sure to take the largest, most perfect fruits available and constantly repeat this performance annually. This is improvement by selection. The chance of desirable union, of course, lies with the hybridizer and his chance of ultimate success is correspondingly greater.

If one is to make a contribution to horticulture and conservation through the growing of seedling chestnut stock—and reports seem to indicate that by far the larger proportion of chestnut plantings in Pennsylvania are seedlings—he shall have to practice rigid rules of selection. He must be ruthless in destroying all trees which do not measure up to a standard he himself must create. Certainly he shall not want to retain any trees which fail to exhibit strong or complete resistance to the chestnut blight. Such a high standard will compel him to eliminate all but a few of his stock, but he may proceed with the assurance that this procedure is correct even if it seems cruel. It is most human to save, and it is quite natural for most of us to "let it grow" rather than destroy it, even when we entertain serious doubts about its value. I am reminded of the orchardist who, having planted his trees too close together, tried to bring himself to the point of cutting out every other tree. His courage failed him for six successive years. Being a good man he had no enemies who could be called to do the cutting. The only hope left was that he might himself die soon. Broadly speaking, it might be concluded that our measure of success in plant work will be in direct proportion to our willingness to eliminate any and all specimens which do not measure up to a strict standard. This is not easy.

Accuracy has been called the twin brother of honesty, but it would be entirely dishonest to leave any impression that plant improvement work is without its great share of disappointments and discouragements. It does, however, have its gratifying compensations, and the discovery that one has produced something better than that with which he began will soon erase the un-

(Continued on page 30)



A spray of Pennsylvania-grown Oriental chestnuts.

★ ★ ☆ CURRENT TOPICS ★ ★ ★



Photos Tribune-Republican, Meadville.

GAME COMMISSION MEMBERS AND SPORTSMEN AT PYMATUNING—OCTOBER 5, 1944.

Front Row: H. C. Sutherland, Game Protector, Jamestown; Carlyle Sheldon, Fish Warden, Jamestown; Elmer Simpson, Game Protector, Cambridge Springs; Capt. Geo. A. Draut, U. S. Air Force, formerly Sports Editor, Meadville Tribune Republican; Hayes T. Englert, Field Div. Supervisor, Oil City; Raymond Sickles, Game Protector, Linesville; Geo. W. Keppler, Game Protector, Meadville.

Second Row: Ralph Roberts, Sharon; Dick Roberts, New Castle; Harold Moltz, Member Pa. Game Commission, Williamsport; John Herman, Commission Member, Harrisburg; Dr. H. E. Kilgus, Commission Member, Brockway; John M. Phillips, former Commission President, Pittsburgh; Ross L. Leffler, Commission President, Pittsburgh; Robert Lamberton, Commission Vice-President, Franklin; Seth Gordon, Commission Executive Director, Harrisburg; Dr. C. B. Rosenkrans, Commission Member, East Stroudsburg; John Neiger, Fish Commission Member, Scranton; Ken W. Williams, Meadville Tribune Republican.

Third Row: Johnny Mock, Editor All Outdoors, Pittsburgh Press; Rosey White, Fish Warden, New Wilmington; Rollin Heffelfinger, Field Division Supervisor, Irwin; C. R. Buller, State Fish Culturist, Bellefonte; Tim Minahan, Reporter, Harrisburg; R. A. McCachran, Asst. Executive Director, Pa. Game Commission, Harrisburg; G. I. Phillips, Commission Member, Alexandria; C. C. Freeburn, Acting Chief, Div. Game Land Management, Harrisburg; John Sauer, Pittsburgh; W. C. Shaffer, Chief, Div. of Law Enforcement, Harrisburg; Raymond Armstrong, Delegate Crawford County Sportsmen, Guys Mills; C. A. French, Commissioner of Fisheries, Harrisburg; Daniel McElhaney, Crawford County Council of Sportsmen, Titusville; Thomas O'Hara, Engineer Fish Commission, Bellefonte; W. W. Guiney, Deputy Game Protector, Linesville.

Commission Honored by Northwestern Sportsmen

Conforming with the Game Commission's current policy to hold meetings in various parts of the Commonwealth, so that the Members may become fully acquainted with statewide conditions and to give the sportsmen and other interested citizens an opportunity to meet them, its regular Fall business meeting was held at the Lafayette Hotel, Meadville, on Thursday, October 5.

The previous day the Commissioners inspected the Pymatuning Waterfowl Refuge, the educational museum on Ford Island, the Fish Commission's hatchery within the refuge, and examined other nearby areas to study the possibilities for future development in that region.

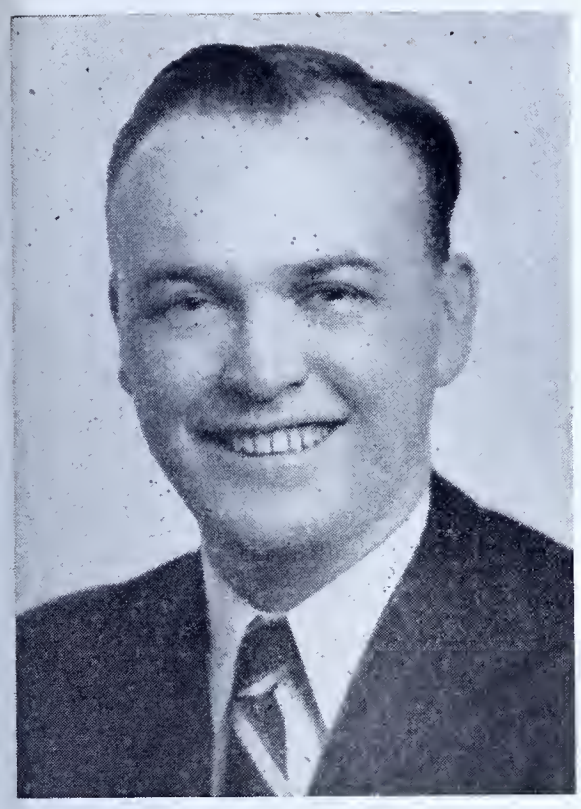
Local field officers guided the Members during the inspection trip, and Commissioner Charles A. French was in charge of the inspection of the Fish Commission's program.

After spending the day on field inspection work, the entire party went to Meadville, where more than one hundred officials and sportsmen representing the Northwestern Division of the Pennsylvania Federation of Sportsmen's Clubs assembled at the Lafayette Hotel for a testimonial dinner to the Members of the Game Commission. Repre-

(Continued on page 30)



Game Commissioners Ross L. Leffler, President, right, and Robert Lamberton, Vice-president, left, looking at a big one held by Fish Commissioner Charles A. French, at the Fish Commission Hatchery at Pymatuning.



KNOW THEM BETTER

John R. Langenbach

Mr. Langenbach began his services with the Commission in October 1937 in the Division of Propagation and Research. From then on until 1941 he made an extensive study of the stomach contents of hawks and owls sent in for bounty, handled the Commission's Controlled Shooting Area program, and did considerable research work on the cottontail rabbit. In 1941 he was transferred to the Loyalsock Experiment Station where he supervised the research activities being carried on there until the war stopped them. Then he was made Acting Game Land Technician in Divisions "C" and "E".

Previously he was employed by the Michigan Emergency Conservation Work on the White Grub control project, having charge of six CCC camps. In 1934 he returned to Ann Arbor for additional education and in February 1935 was appointed Assistant to the Forestry Manager in the School of Forestry and Conservation. He retained that position while getting his Bachelor's Degree in Forestry and his Master's Degree in Wildlife Management. In October 1936 he accepted a position as Assistant Leader to the Connecticut Cooperative Wildlife Research Unit, one equivalent to that jointly administered by the Pennsylvania State College and the Game Commission.

Mr. Langenbach was born in West Bend, Wisconsin, and attended grade and high schools there. In 1931 he entered Marquette University, Milwaukee, and later matriculated at the School of Forestry and Conservation at the University of Michigan.

As far as he can remember, he and his father went hunting and fishing together regardless of school whenever the opportunity presented itself. He spent his early school-day vacations working on a farm.

BUY BONDS

Commissioner Leffler Receives Scout Award

Game Commission President Ross L. Leffler was recently awarded the Silver Antelope by the Region Three Silver Antelope Committee of the Boy Scouts of America.

The award, recently made for the first time, is given for noteworthy service of exceptional character to boyhood by registered Scouters within the territory under the jurisdiction of a Region.

Aside from his various business and professional obligations, President Leffler has rendered many valuable services to Boy Scout work. Among them are: Camp Director, Laurel Mountain Camp, Duquesne Council, 1921-1924, Commissioner of the Duquesne Council, 1923-1930, member of the Executive Board, Allegheny Council, 1930-1935, Chairman of Camp Committee, Allegheny Council, 1934-1944. He was elected President of the Allegheny Council in April 1944. In January 1937 Mr. Leffler became a member of the Regional Executive Committee, and at the same time accepted responsibility as the Chairman of the Regional Camping and Activities Committee in which capacity he served with great distinction and effectiveness until his election as Chairman of Region Three in October 1943. He is a member of the National Executive Board, the National Personnel Committee, and the National Camping and Activities Committee.

Mr. Leffler has a continuous record of volunteer service to Boyhood in the Duquesne Council and the Allegheny Council since 1921. He has been influential throughout Region Three in the development of opportunities for boys to enjoy the out of doors. Under his leadership and stimulation the Camping and Activities programs of the 52 Councils of Region Three have been highly satisfactory to the hundreds of thousands of Scouts who participated.

President Leffler is also a Silver Beaver.

Nehf New President Southeastern Division

Charles H. Nehf, Field and Stream editor of the Allentown *Morning Call* and for many years an active participant in sportsmen's association work, was recently elected president of the Southeastern Division of the Pennsylvania Federation of Sportsmen at its annual meeting held at Frackville. Delegates and alternates from all nine counties of the Southeastern Division were present to honor Mr. Nehf for his fine work.

Morning sessions of the meeting were held in the Garden theater, with president Oscar Becker of Reading presiding. He was later elected vice-president of the Division.

A dinner program, followed by regular afternoon sessions, at Swade's restaurant included numerous speakers, among them Senator Harold Watkins of Schuylkill County; John Fignar, vice-president of the Schuylkill County Sportsmen's Association, hosts to the gathering; Seth Gordon, Executive Director of the Game Commission, and R. A. MacCachran, Assistant Director; Merton J. Golden, Suppervisor of Division "A" and J. C. Gilford, Supervisor of Division "B".

The election and the adoption of resolutions for the betterment of wildlife conditions were the major items of business.



KNOW THEM BETTER

Albert R. Bachman

Mr. Bachman entered the employ of the Game Commission in 1937 in Land Managerial Group "D-7", with headquarters at Rainsburg, Bedford County. On June 1, 1942 he was promoted to Game Land Technician of Division "A".

He attended the public schools at Hellertown. Later he became affiliated with a number of sportsmen's clubs and served as Treasurer of the North County Federation of Sportsmen's Clubs until he resigned to enter the Game Commission Officers' Training School in July 1936.

Mr. Bachman was born and grew up in Hellertown, Northampton County, Pennsylvania. During his boyhood he worked on his uncle's potato farm, and while working there he became interested in muskrat and skunk trapping. When 14 he acquired his first hunting license. But it was not until a year later that he bagged his first deer near New Germantown, Perry County.

He has hunted big game in Eastern and Western Canada and in Western United States.

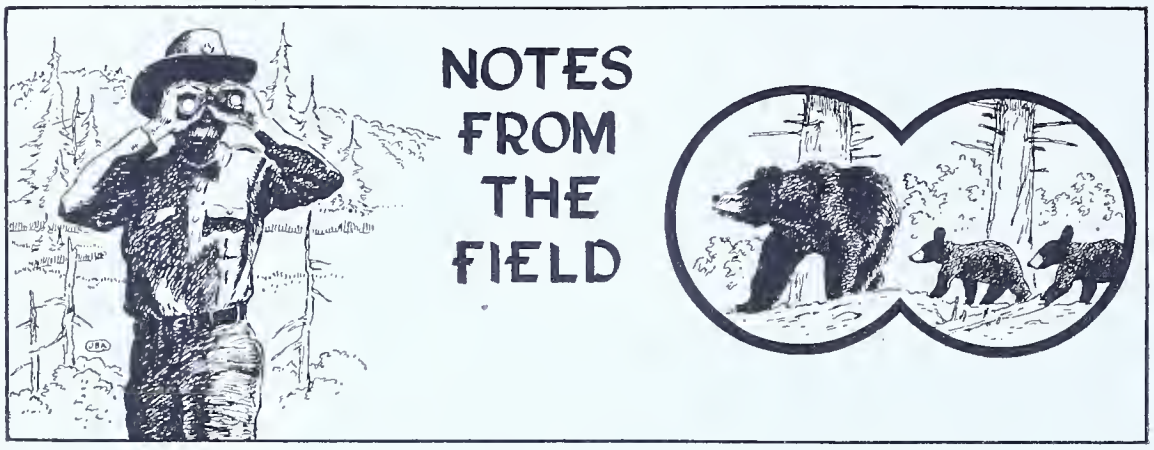
His hobby is shotgun shooting, with crow shooting and fox hunting on the preferred list.

Arthur L. Clark Dies Suddenly

Arthur L. Clark, Chief of the Division of Fish, Game and Forests Production of the Missouri Conservation Commission, died suddenly of a heart attack on Wednesday, September 20. Death overtook him while on a fishing and hunting trip near Bismark, North Dakota—his first vacation since his appointment in 1938 to the post he held at his death.

Mr. Clark had been a well-known figure in the conservation world for many years. A graduate of Cornell University, he was a Superintendent of Fisheries and Game in Connecticut, a post which he left to accept his position with the Missouri Commission.

He is survived by his son, Corporal David L. Clark, who is stationed at Camp Atterbury in Indiana.



"The early duck migrants have started on their way south. I have noticed quite a few Teal stopping over on the beaver ponds in this area."—Game Protector Elmer D. Simpson, Cambridge Springs.

"I've seen quite a few bucks in the velvet. One was crippled in the left hind leg and its right antler was deformed, but it seemed to get along okay."—Game Protector Edward R. Richards, Portland Mills.

"The shorebird migration reached its peak during the latter part of this month (August). The lower lake is very low and many mud flats are exposed making ideal feeding places for the small birds. This caused them to linger, and one could see some at any time during the month . . .

"Young ducks and geese are taking to wing and are more noticeable in the refuge lake. During the early part of the month, while taking a boat trip to the upper part of the lake with Leo Luttringer, I saw a flock of over 2,000 ducks and three different flocks, totalling over 75, of Canada geese."—Games Protector Raymond M. Sickles, Pymatuning Refuge, Linesville.

"There are two ringneck hens on the refuge that have just hatched a brood of young. I believe these hens are some of the wild-trapped birds from the Dakotas and the excitement of shipping and change in environment caused them to nest later than is their custom."—Game Protector Raymond Sickles, Linesville.

"It can now be determined that the acorn crop in this section is below that of normal years. Scrub oak is very good in most areas. Chestnuts are showing up better than usual, especially on sprouts in cutting.

"Groundhogs have become so plentiful they are a nuisance. They are rightly named 'hogs,' as they clean up food that should be left for more valuable wildlife."—Game Protector Elmer Pilling, Philipsburg.

"From my observations I believe weasels are on the increase. I have taken five off the roads that were killed by cars and saw two running in the woods, whereas usually I don't see more than one or two a year . . .

"The corn we raised at Game Lands No. 34 for winter feeding is now being taken away by the raccoons and woodchucks. They have destroyed about two acres so far. They break the ears from the stalks, eat part and leave the rest to spoil."—Game Protector Clyde W. Decker, Clearfield.

"Mr. George Wright of Franklin reports a peculiar instance. While he was training his bird dog in the vicinity of Two Mile Run it made a point. But when Mr. Wright went in to flush the bird he was unable to do so. Thinking it was crippled, and stooping down to make a closer investigation, he found a six foot blacksnake lying coiled within two feet of a woodcock. Mr. Wright said, 'The bird did not flush until I disposed of the snake.' "—Game Protector W. T. Campbell, Franklin.



"While working my mowing crew on the annual cleaning up of refuge lines, roads, and fire trails we disposed of 10 rattlesnakes, 3 copperheads and 6 blacksnakes. We tangled with 50 yellow-jacket nests, 4 hornet nests and removed 25 wasp nests from the back of posters along the refuge lines."—Game Protector Wm. Lane, Hustontown.



"Rabbits have increased considerably since last season. I feel certain that the Trapping and Transfer Program was responsible for this increase. The animals trapped were free from disease and readily found new homes—a far cry from the pitiful looking creatures that were shipped in from the West. As long as this program can be carried out we will have an increase in the rabbit population each year . . .

"I have also noticed a gradual increase in ringneck pheasants. From all indications this will be a good small game season."—Game Protector Fred Fisher, Mifflinburg.

"On September 29, while sitting in my car checking water conditions in a small trout stream that flows into Hemlock Creek, I observed a grouse hen and seven young dusting in the sand on the road bank. Suddenly a Cooper's Hawk swooped down from the hillside, seized one of the young birds and flew up to the dead stump of a tree for its evening meal. One shot from a .22 rifle and he was a dead hawk. But it was too late to save the young grouse. It was killed before the hawk left the ground."—Game Protector Floyd A. Beck, Venus.

"Bears utilized almost one hundred percent of a large crop of chokecherry. I found every thicket thoroughly worked over by the animals . . .

"All food crops are falling early this year. Most of the late apples have already fallen and been eaten, and acorns, filled fruits that separate from the cup when they fall are dropping fast—mature. Hawthorn apples have not fallen, but seem more mature than usual for this time of year."—Game Protector L. B. Rosenkrans, Wilcox.



"My new crew, made up entirely of boys under the age of 18 years, did a good job with no more expense than in other seasons with adult help. Besides, I was able to show the boys an object lesson which will bear much fruit."—Game Protector William Lane, Hustontown.

"We have observed quite young grouse these past few weeks. So far we have not noticed any signs of wood ticks on these birds, nor on birds that might have been weakened by them. I believe that piles of

wood ashes for grouse dusting places are of great value in discouraging these pests."—Game Protector Maynard Miller, Honesdale.

"We were talking about snakes one day while working at the Safe Harbor Power sub-station when all of a sudden one of the fellows saw something fall over a rock cliff. As we investigated some small stones rolled down about the same place and upon reaching the spot I found a baby rabbit. When I went to pick it up I was warned to be careful because we were sure there was a snake close by. Later I picked up a second rabbit. Then I spied Mr. Snake, and quickly dispatched it with a couple of stones. Just then one of the fellows with me said 'Look out, there comes another one!' Not knowing if he meant a snake or rabbit I looked up just in time to catch another rabbit as it tumbled down. In all, five of them fell from their nest, about twenty feet up the cliff on a little shelf which in turn was from ten or fifteen feet from the top.

"When we investigated the nest it was completely destroyed. Another youngster was beside it that could hardly navigate. Two of the little animals died from the fall. I took the others home and my wife and I fed them with an eye dropper. At first we had to force-feed two of them, but in a day or so they all ate readily. After we had them awhile some of them could eat greens but the smallest one choked to death on a piece. The other three grew rapidly and when they were able to care for themselves we released them. The only theory I can advance about the whole episode is that the snake (measuring over four feet long) got into the nest and the mother attacked it causing it to fall over the cliff. I have heard quite a few arguments in defense of blacksnakes, but for me they eat too many bird eggs and little rabbits."—J. D. Kerlin, West Fairview.

"While patrolling the rim rocks near the head of Wolf Run, Deputy Hanson and I happened upon two turkey vultures that had not left their nesting place. They were nearly full grown but still had traces of down on them. We picked them out of the rocks and are holding them for the local sportsmen's wildlife show."—Game Protector George L. Norris, North Warren.





"One of our local poultry raisers thought he was losing chickens from his pens on a side hill, but he could find no holes in the wire. He took a chicken which had died from natural causes and placed it in the corner of the pen. On the post above it he put a pole trap. The following morning he had a large Great-Horned Owl!"—Game Protector Paul L. Failor, Mt. Pocono.

"In some sections of the country, especially on Game Lands No. 184 and 158, we seem to have an epidemic of 'walking sticks,' which are particularly destructive to young locusts . . .

"I have heard a superstition that the number of yellow-jacket nests is a sure sign of the severity of the coming winter. Should this be true, we are due for another '36 in this section!"—Games Protector Jack P. DeLong, Portage.

"Several nights ago while driving along a dirt road in Great Bend Township, Susquehanna County, I came upon a red fox running around in the road. He took off up the road in the same direction I was travelling.

"I immediately gave chase and was soon rolling along at thirty miles per hour, the fox keeping well in the lead, and staying right in the middle of the road past several form houses and up a small hill. By this time I could not believe my eyes! At times I could run the car so close to the animal that it was hidden below the front end, and all the time I was blowing the horn and yelling at him to put on a little more speed. This chase continued for exactly eight-tenths of a measured mile.

"He started at thirty miles per hour and finished up at twenty and I am positive he put forth every ounce of speed and endurance within his body. The last I saw of Mr. Fox he went tail over head into a field and is going yet as far as I know. This was one time, and probably the only time, that I shall ever be on the same footing with a perfectly healthy fox for any length of time.

"No, I did not kill the creature. The chase was so exciting that I never gave the vermin control campaign a thought."—H. F. Hoffman, Susquehanna.

"The bears have made it quite interesting for the blackberry pickers. On more than one occasion I have heard persons state, 'I just won't go back in that hollow because I just saw a big bear in there. He has possession. I will go somewhere else for my berries.'"—Game Protector Claude B. Kelsey, Port Allegany.

"On April 29, 1944 I caught a large female beaver and released it about 25 miles from the place it was trapped. About three months later I received a complaint of a beaver and her young building a dam at the same place, so again I placed traps and caught an old female and three young about the size of muskrats. I believe this was the same beaver returned with young to rebuild the dam."—Game Protector Levi Whippo, Parkers Landing.

Through an announcement in GAME NEWS to the effect that Dr. Paul Eves of Harrisburg had found two leather jackets near Caledonia the owners were found. A Mrs. Paul Watson of Chambersburg described them minutely.

"Sunday afternoon, while I had my family out in the mountains above my home, I saw a snake crossing the road. I ran over about 6 inches of its tail. My grandson, McClarin Norman, jumped out of the car and shot it with my .38 special revolver. It had travelled about 6 feet but in that distance had given birth to four baby snakes about 8 inches long. As each one was born they curled up like a hoop, but when laid out on the road were very much alive. Before leaving we smashed the head of each of them."—Retired Game Protector Watson B. McClarin, Salladasburg.



"During the first two weeks of the month I trapped six beavers in the Tidioute Water Shed and released them in nearby territory. One female weighed 40 pounds, one immature male 12 pounds, and three immature females and one male 10 pounds each. All were caught in one dam, although five dams were constructed in that area.

"I saw more grouse in the last two weeks than all the rest of the summer. Most of these were on game lands and the coveys numbered from four to nine birds. Some of the birds were quite small and must have been a very late hatch."—Game Protector George H. Burdick, Tidioute.

FEDERAL TAX ON AMMUNITION

(Continued from page 5)

guns and less ammunition is being produced for civilian use.

Pennsylvania's land purchase program has been greatly stimulated by the Federal Aid program resulting from the Pittman-Robertson Act. Approximately eighty per cent of this State's apportionment of $507,163.92 was allocated for the purchase of State Game Lands. Most of the remainder was allotted to game research and land management projects of the Commission.

The land management project provided for a study of forest wildlife problems, including forest growth, cutting operations, forest fires and controlled burnings to determine the actual ultimate effect on food and cover. Studies were started in February 1940 but the supervisor in charge entered military service, and there being no one to replace him, the project was suspended in October 1942 before conclusive results could be obtained. The total estimated cost of this project was $16,559.99, of which the Federal Government's obligation was $12,-419.99, and the State's $4,140.00.

Game research projects were designed to obtain scientific data to assist in managing intelligently the Commonwealth's wildlife for recreational purposes. Seven such projects were submitted to and approved by the Fish and Wildlife Service. It was with this Federal aid that the Commission was able to establish its Loyalsock Research Station which afforded an ideal place and good equipment for wildlife laboratory and field experiments.

Six research projects were concerned mainly with field studies of our native wildlife problems and already made available much information of definite value to sportsmen and the Commission. None of the studies have been completed because of the war, but as soon as the emergency is over the work will again be taken up.

The total estimated cost of the seven research projects was $35,702.78, of which the Federal Government's share was $26,490.91, and the State's $9,211.87.

Ten land acquisition projects have been submitted to the Fish, and Wildlife Service from the start of the program in 1938 to January 1944. None have since been submitted. All of them were promptly approved after that organization examined and appraised the tracts of land concerned, and was satisfied that the respective areas were of the right type and prices being paid were justified. It may be of interest to mention here that average prices paid for lands by the Pennsylvania Game Commission have been lower than for lands in many other States which were incorporated in Pittman-Robertson projects.

The ten approved projects originally included a total of 169 tracts, aggregating an estimated 123,669.2 acres. Unsatisfactory title caused elimination of a few of these tracts, but others were substituted. The actual area of each tract is computed after the boundary lines are surveyed, and settlement with the grantor is made on the basis of the acreage thus determined. Consequently, acreage and cost figures, as well as survey and title costs, specified in the projects as originally submitted are only estimates.



Four adjacent marginal farms in Centre County, near State College, were acquired in 1940 as a Pittman-Robertson Project and designated State Game Lands No. 176.

The total estimated consideration specified was $449,605.37, which, of course, is subject to change before title for the respective tracts is vested in the Commonwealth. Estimates of the cost for surveying and mapping these tracts amounted to $67,415.92, and for examining and abstracting titles, and vesting title was $55,679.02. The total estimated cost amounted to $572,700.31. The Federal Government is obligated to reimburse the Game Commission to the extent of 75 per cent of the actual cost of each project. Therefore, the Government's proportional share on the basis of estimates is $427,094.66, and the Game Commission's share, i.e. 25 per cent, is $145,605.65, both figures being subject to change when actual cost figures are determined.

Progress or reimbursement vouchers are submitted to the Fish and Wildlife Service at convenient times after title for certain tracts becomes vested in the Commonwealth, for use of the Game Commission, and total actual costs are known. Although title for most of the tracts has been secured, vouchers for all of them have not yet been submitted for one reason or another. They will be sooner or later. Those submitted to date cover 149 tracts aggregating 87,645.6 acres, or an average of 588 acres per tract. The total consideration paid to the various landowners was $368,605.59, or an average of $4.20 per acre. The actual cost for surveying and mapping the 149 tracts concerned amounted to $58,045.95, or an average of 66 cents per acre, and title vesting amounted to $40,576.86, or 46 cents per acre.

The aggregate actual cost totalled $467,-228.40, or an average of $5.33 per acre. Of this, the Federal Government has reimbursed the Game Commission in the amount of $350,421.30, leaving only $116,807.10 as the Game Commission's share for the acquisition of 87,645.6 acres of State Game Lands.

These figures eloquently indicate the benefits derived by sportsmen of Pennsylvania from the small tax, now 11 per cent, which they pay when purchasing sporting firearms, shells and cartridges. The tax might well be classed as "painless," since the individual when purchasing a box or two of shells (when they can be gotten) thinks little or nothing about the extra cost. Nevertheless, the aggregate sum of all these small payments normally provides approximately three million dollars each year which, subject to Congressional appropriations, helps the respective States in their task of providing better hunting, and lands on which to hunt.

Since, as stated before, more hunters are expected in fields and woods after the war than ever before, State game departments must be prepared to guard against serious inroads on the game crop. Pennsylvania, with its relative abundance of wildlife is no exception, and it is very doubtful whether this State's supply will be able to hold up under the expected hunter increase unless further restrictions on the permissible kill are provided in some way.

A proven practical method of preventing overshooting, and of conserving seed stock for subsequent years, is an adequate system of game refuges. If a game refuge is to benefit the public at large, each must be surrounded by land open to public hunting. The wisdom of using lands in public ownership for such purposes wherever possible is unquestionably sound. In Pennsylvania there are 1,654,762 acres of State Forests, 447,156 acres in the Allegheny National Forest, and 754,199 acres of State Game Lands, aggregating 2,856,117 acres, all in public ownership and most of it open to public hunting. Many refuges are now maintained on these lands, but it is conceivable that many more of comparatively small size should be established thereon during the post-war period.

Other refuges, but only where they can be surrounded with land open to the public, could be placed on privately owned lands for which the hunting rights might be leased for a period of five or more years. Even though experience has proven that the use of private lands is often much less satisfactory than lands in public ownership, since private owners are likely to change their minds and demand cancellation of leased projects in many sections must be resorted. This is particularly true of the heavily popu-

(Continued on page 28)

IZAAK WALTON LEAGUE

(Continued from page 6)

and the years immediately following. In support of that statement let us turn back the pages of history to the record of the first World War, with its aftermath of Dust Bowls, polluted streams, drained marshes and lakes, and many other evidences of reckless waste and mismanagement.

Mistakes made once may be excusable, but to repeat the same mistake with the plain record before us will be inexcusable.

With governmental agencies making elaborate plans for the post-war period, now is the time for aggressive action on the conservation front. The policies of governmental planning are molded and influenced very largely by the suggestions and demands made upon the agencies in charge of the job. This is particularly true in the matter of post-war public works planning, and the pattern and nature of the works adopted will depend largely upon activities of organized groups of American citizens in submitting comprehensive plans and in following through for their adoption. The projects that will find a place in actual works programs are the ones that have been carefully planned and the plans submitted and approved before termination of the war.

Practically every industrial and commercial organization in the country is alive to the fact that, at least for a period of readjustment, hundreds of millions, if not billions, of dollars will be spent in a post-war public works program. It is only natural that they, either directly through their organizations, or indirectly, through the products that they manufacture, should seek to benefit in a business way from this anticipated large expenditure of funds. In the planning stage preliminary to the adoption of the program the competition will not be among individual industries in the same field which are normally considered competitive, but rather among groups of industries in different fields.

Three Factors

In contemplating this post-war public works program, three pertinent factors stand out: 1. The government will make every effort to provide employment for returning service men. 2. Various industries are going to make every effort to see that the projects selected benefit their business. 3. Organized pressure groups, representing certain special interests, will be working actively for projects which they believe will directly benefit their membership. What is lacking in this picture? The thing that is conspicuously lacking is someone to represent the broad overall view of whether the projects proposed will be good or bad for the predominant interest in America, namely the whole American public. As many of the projects will vitally affect the land and water, and particularly the water, the public, who will also pay the bill, has a right to see that what is done is both economically sound and will prove to be of broad and lasting benefit.

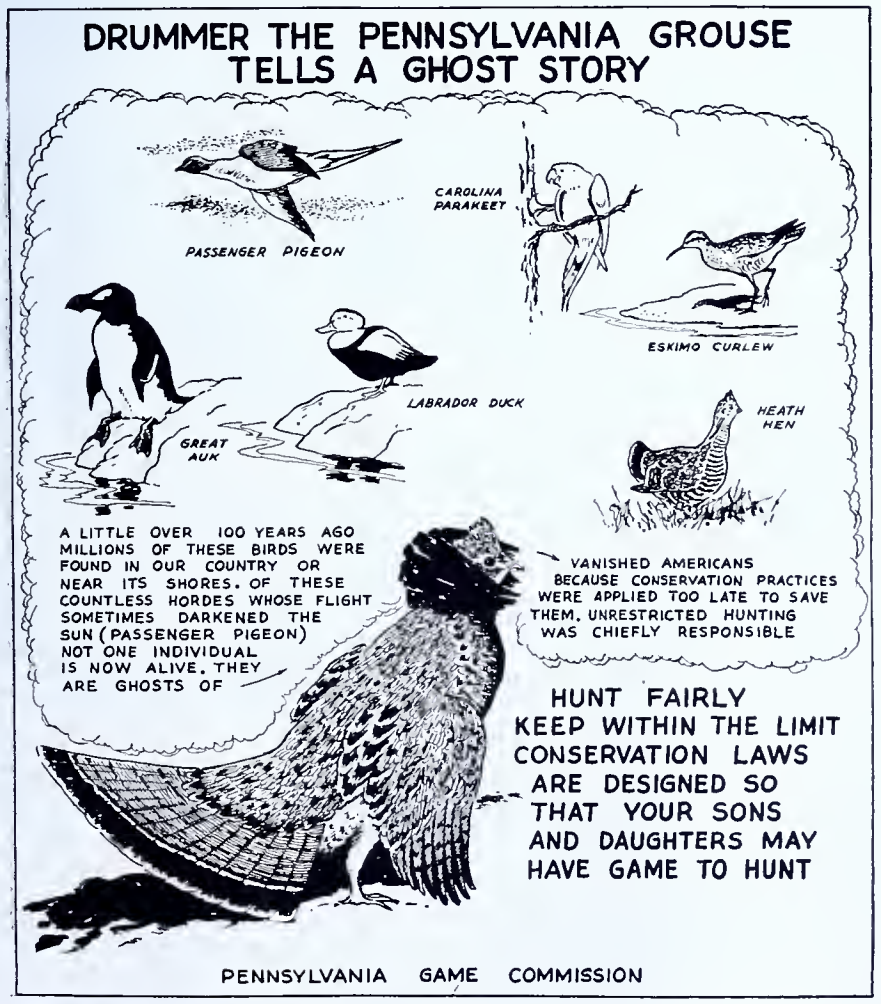
The Izaak Walton League of America represents no special interest. It cares not what the political label of a proposal may be if it conforms with sound land and water management and is in the best interest of the whole American public. The future of America will be vitally affected by a wise selection of public works projects for the post-war period. As the representative of the great but inarticulate American public in the management of natural resources, it is both the privilege and the duty of the Izaak Walton League of America to participate actively in guiding these post-war plans. Every state division and every chapter of the League is working in behalf of projects for the good of their community or state and are cooperating with state and local authorities in post-war planning. There is no more important job confronting the League today. It is a two-fold job: First, to see that the American public is actually benefited by desirable works; and second to have these positive proposals for desirable undertakings act as an offset to prevent or forestall many selfishly-conceived or narrow-visioned projects which would be harmful to broad public values in America's natural resources.

Broad Public Benefit

The Izaak Walton League of America is insisting that post-war public works be for the broad public benefit on the long-time basis, rather than mere temporary financial advantage to a particular locality and that we seek the restoration of natural resources impaired or destroyed by mistakes in the past rather than a new and untried construction program that may further damage our important natural resource base. The League is particularly skeptical about some of the proposed engineering structures designed to block and divert our rivers under the guise of hydropower, irrigation, navigation and flood control, and which seem to captivate the fancies of politicians and promoters, while the inherent public values of our rivers and their aquatic resources are ignored.

Conservation of natural resources is the most important long-time problem before the nation. Long after the war is over, it will continue as a fundamental problem, upon the solution of which depends the welfare of the Nation and its people. Let the material minded not overlook the plain fact that our natural resources are the very source and foundation of all national wealth and that upon their condition depends our prosperity and standard of living. They represent the capital wealth of the nation for which monetary wealth is only a symbol. They form the basic collateral for all the currency, bonds, loans and other criteria of wealth in the nation and when these resources are wasted or dissipated the artificial values based upon them diminish or vanish accordingly.

The Izaak Walton League of America is dedicated to conservation of natural resources, or, to put it another way, land and water management in the public interest. The criterion by which it determines its position on any proposal is: Will the proposal benefit the whole American public on a long-time basis, or will it be only for the immediate financial benefit of a minority or one locality, while adversely affecting broad public values? Its unselfish policy, seeking to make America a better land in which to live, represents the religion of a decent outdoors, the essence of good citizenship and the acme of true patriotism.





BARE FACTS

By Leon H. Walter

EDITOR'S NOTE: *This is one of twelve original stories reprinted from Mr. Walter's "Outdoor Chuckles." All differ from the usual "run of the mine" tales because in each one he finds something which brings back pleasant memories of his own days afield. They cover a wide range of experience from the directions for concocting a sure-fire trapping lure to the experiences of a pickpocketing pickerel. For pure enjoyment of reading about and chuckling over the other guy's outdoor troubles, "Outdoor Chuckles" on sale by the author 564 Madison Avenue, Akron 2, Ohio, price fifty cents, is worth having.*

THEM game report stubs never gave me much trouble before but I had a time this year. They are kind of small and crowded with a few dotted lines after each kind of game and just enough room to set down the bare facts. But that don't cover the bear facts in my case this season.

I ain't certain whether I killed a bear or not although I have his hide and what's left of mine. And I had all of his carcass and some of mine left too.

I don't wait until the last minute to send in my game kill report and it's a good thing I had lots of time this season for I sure had a problem. Right away on the dotted line behind rabbits I put down 14, for squirrels I had 7 and for grouse 3. Not being certain whether I had killed a bear by legal means I put down a 1 with a ? right after it.

The more I looked at it the more it looked like a candy cane leaning toward a Christmas cigar and I figured that wouldn't do and maybe they wouldn't know what I meant anyhow. But that little bit of report stub didn't have room to give only the bare facts instead of the bear facts and so I bore down on the 1 and the ? again. When I got through it looked like the late Neville Chamberlain reaching for his umbrella.

So I studied her over a bit and then bore down on the pencil again and this time it looked just like a 19. Now anybody that knows me knows I never killed 19 bears, especially in one season. Besides it ain't legal. But the game commission don't know me that well and I was afraid they might think I killed 19 bears. So I got away from the bare facts and wrote them on a sheet of paper and gave them the bear facts as follows:

"On November 1st I was hunting rabbits, grouse and such in northern McKean County near the New York State line and not having much luck either. It was pretty well along in the afternoon and I was kind of looking around for a place to eat my lunch after having a late breakfast. I wanted in out of the cold wind to open that lunch in a paper bag in the back of my hunting coat.

"I found some big boulders arranged in sort of a triangle shape on top of a knoll that sloped all directions. There was an opening I could walk through and I went in there and found sort of a semi-cave with the rocks almost touching at the top. It was warm in there and a swell place to eat a lunch and I was about to do just that when I found I had stumbled into a bear den and that Bruin was coming home after being down to the corner drugstore or somewhere.

"Quick as light I figured that I would let him in, slip around the circle of rocks to the entrance and then let him have it with the bear ball that I carried in the left barrel of my shotgun for just such emergency. I did just that and the darned gun kicked hard and the smoke hung right in there and I couldn't see what happened. The next thing I knew that bear was charging out the entrance and I happened to be astraddle of the opening and he took me with him.

"The gun flew out of my hands and when I came down on that bear's back I grabbed real quick and caught him in a full nelson hold from my wrestling days. He started to roll down the slope and me with him. I felt blood soak through my clothes but didn't hurt none so figured it was coming from the bear and not me.

"We kept rolling and thrashing around in the brush and pretty soon I found that he didn't use his hind legs much, weighed only about 125 pounds and maybe I could handle him. I got so I could hold him with a half nelson and wiggled around to get my hunting knife out of the sheath. I was just about to put the knife to him when a fellow showed up through the brush and looked us over.

" 'Hold on, there,' he says. And I tells him that I am holding on but getting kind of tired of it and aim to finish the job.

" 'Listen, buddy,' he says, 'I'm a deputy game warden and you got a Pennsylvania hunting license and this is New York State and I don't want to have to take you in for hunting with the wrong license.'

"But I tell him that I can't be more than 50 or 60 feet over the state line and ask him to kill the bear for me if I can't.

" 'If I kill it will it be mine?' he asks, and I tell him sure thing.

" 'Nothing doing,' he says, 'last season I killed a bear and took it home and had the skin tanned and put on the floor and the wife raises a howl about her going cold while I buy furs for the floor and so I had to get her a fur coat and that bear cost me plenty and I don't want any more of them.'

"So when I could I rolled and steered that bear back toward Pennsylvania and the knoll and pretty soon another fellow came along and I hollered to him for help.

"He turns out to be another deputy game warden and had me roll over to see if I had a license and tells me that it's 4:30 p. m., and that if I'm going to kill that bear I will have to do it before 5 p. m., when the season closes or get arrested. Also he says it's illegal to take or kill game with your hands and I better get a gun and shoot the bear.

"While I was squirming around so the deputy could check my license that bear kind of slipped out of my hold and started chewing. I couldn't feel nothing so I figured he must be cutting brush. Then he started an awful rumpus and I was too busy to use the knife and the deputy stood there looking at his wrist watch.

"Well, sir, just at 4:58 that bear grew limp in my arms and I crawled off him. We looked him over and found he was shot in both hind paws and the deputy figured he must of bled to death and then said he was late for supper already and hurried off. I found a hole chawed in my coat and the lunch gone, a lot of skin barked off me here and there and plenty of briar scratches but I was able to take that bear out of the woods.

"The first thing when I got home the wife says, 'I'll bet you're hungry, you forgot your lunch, and I couldn't figure out what the bear ate out of my coat.

"When I dressed him I found a couple of three gang plugs, some rusty spoons and spinners and a bunch of rusty fish hooks and safety razor blades had cut him up pretty bad around the mouth and throat and caused him to bleed inside until he died.

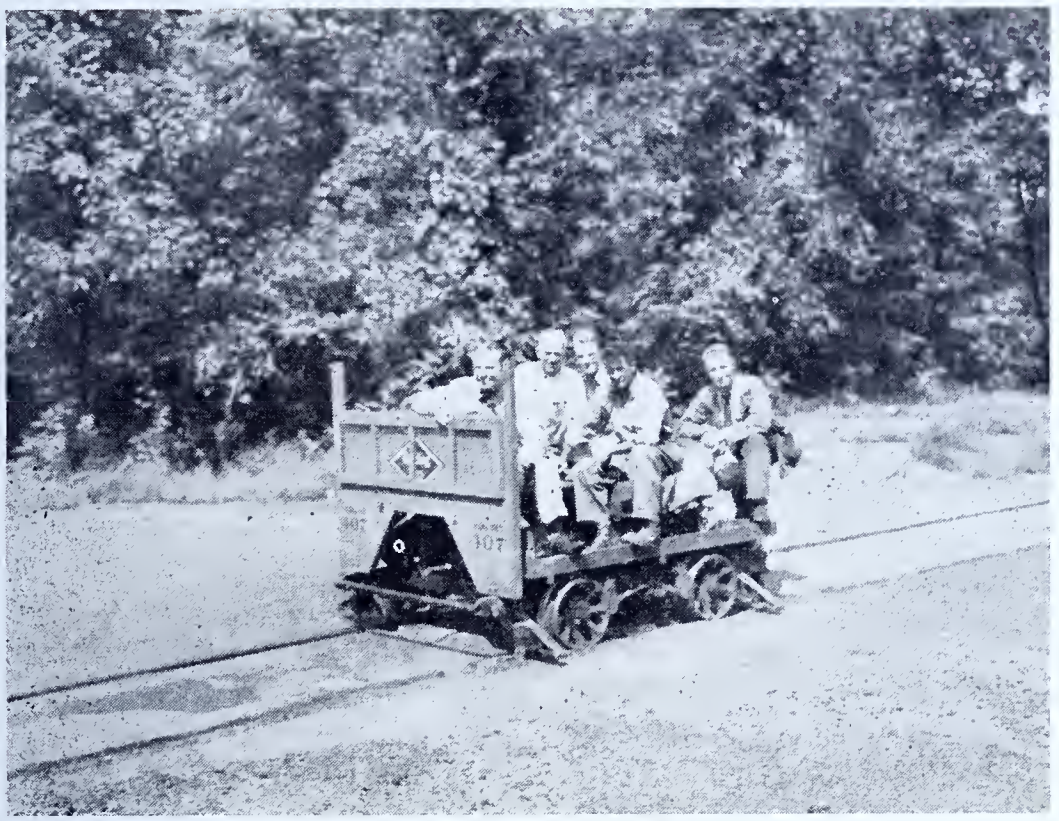
"Then I remember that after my last fall fishing trip I had cleaned out the tackle box of battered plugs, rusty spoons and fishing hooks. I also had a mess of no good safety razor blades and I put them in a paper bag and was going to bury them deep but the ground froze early and I didn't get at it. I must have picked up that bag instead of my lunch when I went hunting on November 18.

"So there's the reason my game report is tracked up so."



A ROCKY RIDE UP STONY CREEK

(Continued from page 14)



How the party looked when the jeep was not rolling.

The eastern half of the valley is old coal mining country and all along the sides of the roadbed in this section are evidences of mining operations, idle and abandoned these sixty or seventy years. Oaks, hickories and seedling poplars cover the site of a once thriving railroad town of five hundred houses and over a thousand inhabitants; a hidden, overgrown graveyard is the only reminder of former human habitation. This is Rausch's Gap, now marked by a sign over a ramshackled, weather-beaten shed.

We had lunch—I having provided none was fortunate enough to share in some mighty good sandwiches prepared by Mrs. Conklin, and the Commissioner and Jim had brought along some remarkable fried chicken, the legs of which were all white meat (according to their story)—beside one of the fastest flowing natural springs of ice cold water in Pennsylvania. This was at Cold Spring, a famous summer resort and the site of a big hotel in the '80s. The setting for the luncheon was ideal, the spring welling up within a once-glass-enclosed pergola and rippling down to form a little stream which wound off through the sunny woods. Big hemlocks and pines surrounded the spring and we spread our feast on the sun-splashed grass beneath them. It was country to delight the trout fisherman and grouse hunter.

Now why all this descriptive preamble to a day's outing for four men? Because the Pennsylvania Game Commission is buying for Pennsylvania sportsmen to use over 27,000 acres of land in this wild, remote valley and wild and remote it is, although the ridges guarding it can be seen from the Capitol City. With its trout streams and aisles of oaks, beeches and poplars it is country in which the sportsmen can revel. Deer are more than plentiful (wherever we got out we saw tracks); foxes and 'coons are there. Much of it looks like good grouse country. Hunters and hikers want to watch their steps, though, as they must in many parts of the Commonwealth's hunting country. The innumerable rocky formations scattered through the woods form attractive lurking places for copperheads and rattlers. Forty-six of the latter were killed in one season recently by trackmen engaged in mowing the 27-mile right-of-way. In most of Pennsylvania's woods similar care must be taken, particularly around rocky ledges. Watch where you put your hands when climbing any wooded cliff and look carefully when you step over logs in country where rattlers are known to be common. Ordinary hunting boots are almost perfect protection, but if you are going to run around bare-legged in sneakers take a look-see where you put your feet.

Many sportsmen know this country generally, particularly Dauphin County hunters and fishermen, and an article describing the territory and its proposed acquisition appeared in the February 1944 GAME NEWS. With this purchase effected and under the management of the Game Commission, many conditions will be improved and the beneficiaries will be Pennsylvania's sportsmen and outdoor enthusiasts.

An animal locally described as a panther observed by residents near Corry, Pennsylvania, is reputed by local Game Protectors who made a thorough investigation to be either a large police dog or some other mongrel.

A Sportsman's Queries

(Answered by Chas. F. Stambaugh)

Question. Are box traps legal?

Answer. Yes, but they must be tagged and visited the same as is required of steel traps. They must not be equipped with nails or other "teeth" to hold the animals. No game animals except raccoons may be taken in box traps.

Question. Are deadfalls legal?

Answer. Yes. They too must be tagged and visited as required by law.

Question. May a person with a hunting license shoot crows on Sunday?

Answer. Yes, insofar as the Game Law is concerned. Another law makes any Sunday hunting or shooting unlawful, under penalty of $4.00 for each offense.

Question. Why is it that raccoon hunting season opens before raccoon trapping?

Answer. The principal reason is to give the raccoon hunter and his dog a chance to hunt for a short time (a week in 1944) without the danger of his hound being caught in a trap.

Question. May a person with license carry a rifle on a trap line?

Answer. Yes. But it must not be an automatic.

Question. What can a hunter do if his dog gets caught in a trap legally set?

Answer. About all he can do is release the dog. However, trappers are asked and instructed to set traps in such manner that dogs are not liable to get caught in them. If the traps are set legally, it is doubtful whether the dog owner has any legal redress against the trapper.

Question. Is it legal to set traps in den trees for raccoons?

Answer. Definitely not. Traps may not be set within five feet of a den.

Question. Is squirrel shooting allowed on Sunday?

Answer. No. It is unlawful to shoot any game birds or animals on Sunday.

Question. What can we do with a skunk that gets in a fox trap out of season?

Answer. If the skunk is uninjured it should be carefully released at once. Should it be severely injured or killed, it must be reported to the nearest Game Protector immediately, and he will advise disposition. He will NOT allow you to keep it.



"Oh yes, I forgot you only pull one trigger at a time!"

SOS for Fats

The back cover of this issue is self-explanatory. It packs a whale of a wallop, or should. A similar plea packed just as big a wallop two years ago as far as Pennsylvania's trappers, fur-dealers and rendering plants are concerned. That's when the War Production Board first made its plea to all states to urge the saving of fur-bearing animal fats for making explosives. As a result over 94 *tons* of this by-product were collected.

Last year probably twice that much was saved for the war effort. The Commission did not ask those concerned to send in voluntary reports because it realized only too well the extra effort it would entail due to lack of time. Nonetheless, judging by the enthusiasm evidenced by those concerned, it is safe to predict, as the Commission did, that "twice as much" would not be putting it too strongly.

This year, with the tempo of the war increasing by leaps and bounds, it goes without saying that the original 94 tons will be tripled, not doubled, despite the fact that gas and tire rationing have tended more to curtail the operations of those who have so patriotically endeavored to collect as much fat as their time and facilities will permit.

Use of Game as a Food

(Continued from page 7)

fender of an automobile next to the engine and driving through dust, heat and sun with the carcass exposed will ruin any big game meat.

The flesh of game, when young, is generally tender, contains less fat than poultry, is of a fine though strong flavor, and is easy of digestion. Climatic conditions, food and cover all bear a definite relation to the quality and taste of game meat. Age effects the flavor and texture of the meat to quite an extent.

Venison is similar to beef in chemical composition but is not nearly so fat as well-fed cattle. On the average, game birds furnish a little more protein than the so-called "red" meats, but the two classes, red and white meats, are equally healthful.

If game meats were used more commonly and a taste for venison and wild fowl cultivated, there could be more variety in the diet with practically no increase in cost. Game is not expensive if one shoots it but if it is brought home and not cooked properly it is a total loss. Many an ardent hunter has hastened home, bubbling over with enthusiasm about his prize game kill, only to have it ruined by improper cooking. While the cooking of game is not difficult, it does require special knowledge for its preparation and cooking.

Three may keep a secret, if two of them are dead.

The busy man has few idle visitors; to the boiling pot the flies come not.

Laziness travels so slowly that poverty soon overtakes him.

Beware of little expenses, a small leak will sink a great ship.

Federal Tax on Ammunition

(Continued from page 24)

lated, better agricultural sections where high values make the purchase of State Game Lands economically unsound. In such sections of the State a vast expansion of the Cooperative Farm-Game Program appears wise and probably inevitable.

The several classes of land now available to the Game Commission will go a long way in solving Pennsylvania's problem during the post-war period, provided an ample number of widely distributed and well placed refuges are established within the areas involved. But areas now available will not take care of all sections of the State. Many more unit blocks of State Game Lands should be acquired, especially in sections where publicly owned areas are not available or are of small size, and provided, of course, suitable lands can be purchased at prices which the Commission is justified in paying for lands for such use.

There is a decided advantage to the Commission and sportsmen in owning the lands it uses for game management purposes. For instance, on State Game Lands over which the Commission has full control, refuges can be set up and maintained for such time as conditions warrant, and not be subject to elimination at the will of an individual landowner. The Commission can do whatever it wants to improve the wildlife habitat, or to build roads and trails, or any other work which would not or might not be permissible on other public lands or on private holdings.

State Game Lands, when certain tracts now under contract for purchase are acquired, *(For distribution of State Game Lands see map on inside of back cover)* will exceed four-fifths of a million acres. At the present time, due to economic conditions and scarcity of manpower, no special efforts are being made to secure options for new purchase projects. As soon as conditions improve, efforts in this connection should be exerted to acquire at least another quarter of a million acres.

Here is where Federal Aid to the States in Wildlife Restoration funds could be used to advantage. Unexpended and Unobligated moneys in the gun and ammunition tax fund in the United States Treasury should, after the war, be appropriated to the Fish and Wildlife Service and allotted to the States. Reasonably large sums with which to purchase lands for game refuges and hunting purposes would then be available, and react to the benefit of hunters.

BOOK REVIEWS

Meeting The Mammals, By Victor H. Cahalane—Published by Macmillan Company, New York—Price $1.75

"Meeting the Mammals" is a splendid introduction to many of our outstanding animals, and a useful, interesting and attractive guide to knowing them. The life history, accurate description, and habitat of each animal is told in this exciting book. Stories of all of them, for the small mammals have as interesting personalities as the mighty bison and elk, make this volume a valuable contribution to the literature of our wildlife.

The book is illustrated with 52 striking dramatic pen-and-ink portraits by Walter A. Weber, the well-known animal illustrator, who illustrated "Fading Trails."

The Canvasback *on a Prairie Marsh,* by H. Albert Hochbaum—Published by American Wildlife Institute, Washington, D. C.—Price $3.00

Every hunter of water fowl should have this volume in his library, because it deals with the life history of one of the most popular of our edible ducks. The author, an ornithological student at Cornell, also studied game management at Wisconsin. He spent a lot of time on the Delta marsh in Manitoba gathering the research data that comprises the contents of this interesting survey. His investigations and those of the individual associated with him cleared up many uncertainties concerning the mating, nesting and rearing of wild ducks in relation to one another and to ducks in general.



During the year May 31, 1944 approximately 45,000 pheasants were released in Pennsylvania coverts.

WILDLIFE LIBRARY

(Continued from page 9)

"Salt Water Fishing," by Van Campen Heilner, A. A. Knopf, N. Y. C. $5.00. Written by one of the world's recognized authorities, it thoroughly covers the whole subject. Magnificently illustrated in color by W. G. Lawrence.

"Fishing for Bass, Muskalonge, Pike, etc." edited by Ray Schrenkeisen, illustrated with photographs. Doubleday Doran & Co., N. Y. City. $1.50.

There are some fine colored fish plates and accurate information concerning them in the yearbooks of the New York Forest, Fish and Game Commission for years 1898, 1899, 1900, 1901, 1902-3. These can often be picked up in second-hand book stores at $1.50 to $3.00 per volume. The books are well worth it and the 1901 and 1902-3 volumes have some magnificently printed colored plates of birds by Fuertes as well as fish pictures.

Bird dogs, fox and 'coon hounds, hunting dogs in general make up another field in which each sportsman has his favorite. I will list one or two books that cover the subject generally and suggest a few specialists:

"Gun Dogs Afield," by Horace Lytle, illustrated by Lynn Bogue Hunt, G. P. Putnam's Sons, N. Y. City. $4.25. An excellent bird dog book.

"How To Train Hunting Dogs," by William F. Brown, illustrated by good photographs. A. S. Barnes & Co., N. Y. City. $2.50.

"Elias Vail Trains Gun Dogs," by Ella B. Moffit, Judd Publishing Co., N. Y. City. $3.00

"The Modern Setter," by A. F. Hochwalt, A. F. Hochwalt Co., Dayton, O. $5.00

"The Modern Pointer," same author, publisher and price as above.

The above two books are the last word on these breeds.

Now what have we got after all this discussion? Well, possibly a good outdoor library for less than fifty dollars. Let's see:

"A Book of Duck Shooting"	$5.00
"Upland Game Shooting"	5.00
"Birds of Eastern North America"	5.00
"Book Of Birds", 2 vol.	5.00
"Field Guide To The Birds"	2.75
"Wild Animals of North America"	2.00
"Fading Trails"	3.00
"Book Of Fishes"	3.50
Misc. Government Pamphlets	3.00
"Gun Dogs Afield"	5.00
Subscription to "Game News" ($1.00 if not a resident of Pa.)	.50
Subscription to "Natural History"	3.00
Subscription to "National Geographic"	3.50
Subscription to "Audubon Magazine"	2.00
	$48.25

Or make your own combination as it seems to best suit your needs and inclinations.

If you have children that are interested in wildlife there is a fine bird book published by M. A. Donohue & Co., Chicago, with good colored plates and charmingly written stories. Its title is "Birds At Home," by Marguerite Henry. The $1.25 price is about half of what it is worth.

The Five and Ten Cent Stores sell two excellent little nature books at a dime each:

"Butterflies and Moths of North America," by L. D. Fazzini, Whitman Publishing Co.

"Talking Leaves—How To Identify American Trees," by Julius King, Harter Publishing Co. This has fine drawings by Evan Thurber of trees with close-ups of leaves, fruits and cones and interesting zone maps.

The Comstock Publishing Co., Ithaca, N. Y., sells, for a few cents each, an excellent series of outline drawings of birds and animals. The fact that they were drawn by Louis Fuertes speaks for their accuracy.

Church & Dwight, the "Arm & Hammer" soda people in New York, have several series of colored cards of birds, beautifully printed, representing some of Mr. Fuertes' very best work. They sell them for ten cents a set and I believe that series 9 and 10 are now available. Address: Church & Dwight Co., Inc., 10 Cedar St., N. Y. City.

I hope that all this will partially prove that one can gather to-gether an interesting and accurately instructive collection of books and other literature on wildlife and still have something left with which to fill the youngsters' stockings at Christmas.

I have collected books, magazines and pictures of birds, animals, insects, reptiles, trees and flowers for over twenty years and so far have never failed to eat—although there have been times when I wished that books were edible. To me it is a fascinating hobby and I have been rewarded by watching my son's growing interest in the things that have interested me; the books have paid for themselves many times over by the pleasure they have given to Jack and me. Just now he is assisting in routing the Nazis out of France, but the time will come when he will be back and we can again enjoy the books and pictures that I have had such fun (and occasionally trouble) collecting.



John F. Shoffstall, of Lancaster has been teaching fellow-workmen how to trap foxes, and has had some apt pupils. Anyhow they're getting results. Above is trapper Shoffstall and his son with two examples of their joint skill.



Photo by M. E. Sherman

Harry VanCleve, right foreground, former predator expert of the Commission, now employed by a large trapping concern in the East, and Harold L. Plasterer, center, one of the Commission's predatory experts, gave trapping demonstrations to all Commission field officers between September 5 and September 30. The Commission is continuing its efforts to depopulate foxes and other predators to reasonable quantities throughout the State.

HIGH STAKES

(Continued from page 19)

pleasant aspects and spur one on to greater accomplishments. This thought should encourage even the most humble among us. Doubtless you have heard the story of the general who declared it impossible to build a bridge across a certain stream that obstructed the march of his army until he obtained blue prints, plans and specifications for the work. While he waited for these a subordinate built the bridge and reported to his superiors with the suggestion that it might be well to march the men over the bridge immediately and make the drawings later.

Thousands of chestnut seedlings and hundreds of pounds of seeds have, within recent years, been planted within the State. These seeds have come from many sources including imports direct from China. There are scattered trees (Oriental) locally in the State which have been and are producing seed, a part of which is used for the growing of seedling stock. It seems that these have been the sources of nearly all the stock now growing in small plantings in a large part of Pennsylvania. In addition the U. S. Department of Agriculture and various nurseries have added somewhat to this inventory. These plantings are of varied ages; the oldest to the best of my knowledge is slightly over forty years of age. This latter reference concerns but three trees planted about 1902. These still live and produce annually.

The results and experiences in growing Oriental Chestnuts seem to be as varied as the individuals who planted them. Many who planted these trees in hopeful anticipation have lost them all; others have but a few remaining to remind them of their efforts; while still others have had more pleasant experiences and are prepared to carry on larger operations. It is this very wide difference in results which has aroused and held my personal interest. While these observations are strictly limited, I am compelled to believe that many losses are the result of our misunderstanding and ignorance of the needs of these trees. How, for example, can one explain the loss of 100% in one case against the loss of 2% in another case of a certain lot of seedlings grown from seed of the same source, transplanted at almost the same moment on two widely separated sites, the loss occurring within nine years? Because of the common source of seed this could not have represented a difference of seed quality. We can eliminate the suggestion that conditions generally were more congenial for the latter group, for these, like the former, were planted in soil too poor to grow a presentable crop of buckwheat. Both groups, too, were planted in close proximity to woods where the chestnut blight is still evident.

Knowing something of the history of these plantings, it was not difficult to recall the separate treatments given them. One was simply planted and left to itself while the other was given complete cultivation and an annual application of commercial fertilizer. The comparison can scarcely leave doubt. This factual illustration can be duplicated over and over in my observations and most certainly compels the suggestion that complete cultivation with generous fertilization, either in the form of humus worked into the soil or fertilizer of chemical origin, will largely enhance the value and possibilities of chestnut plantings. I am not prepared to say just how long complete cultivation should be carried out. Perhaps after trees will have attained good size, cover crops might be grown advantageously. It would seem, however, that during the early life of these trees they are not equipped to withstand the competition the usual planting of them has offered. Too, there is much evidence that the slow growing tree—or any of them which languish—are the very first to become host to blight infection. It is always safe, chestnuts or bank accounts, to "keep 'em growing." This will serve to keep happy both the grower and the tree.

(To Be Continued Next Month)

Your Rifle and You

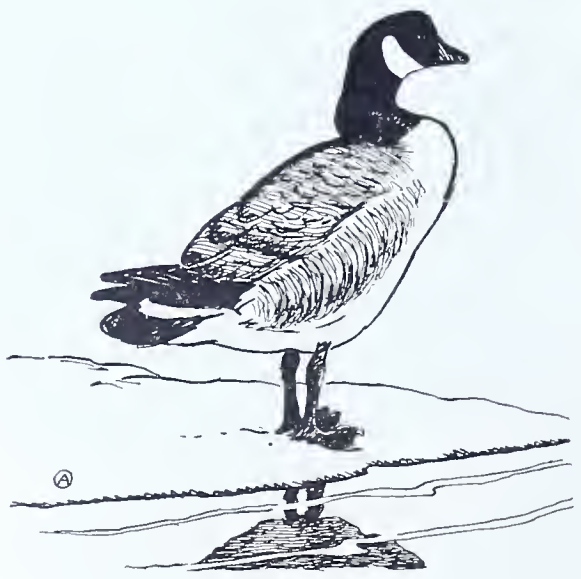
(Continued from page 17)

away as you load the magazine and flip on the safety. The soft-nosed bullets are terribly dangerous. I knew of a man who died from the shock of a 250/3000 bullet through his ankle.

Later in the forenoon you are on the watch. Occasionally from a long distance you hear the flat crack of shots. But, something is coming from the direction of the drive—a thumping, bounding sound, not loud, but you hear it. Off comes the safety. There he is! He has paused in his stride before he crosses the old woods road. Your eye finds his shoulder. The rifle comes up smoothly until your cheek rests against the roundness of the stock. You have confidence in the rifle; it has become a part of you. The bead swings into your line of sight, your finger presses the trigger.

Your fingers fumble a little trying to loosen the big game tag as you walk forward to fasten it on that great rack. Yours has been the privilege of taking the finest trophy which falls to a hunter, a white-tail buck. You shot straight, you killed him cleanly, he never knew what hit him. You are a rifleman hunter who places his shots.

Good hunting!



Canada Goose

With Those in the Service

(Continued from page 12)

difficult and sporting shot while in flight. The meat is dark like the dove family—and has a delicious flavor. While speaking of doves—I have recommended an open season for them in Pennsylvania during the regular upland game season—since they were classified as game birds some years ago. They would provide the hunter with a sporting shot, add another variety of bird to his game bag—and I am convinced that the number shot in the State would not have a detrimental effect on the species—Col. Nicholas Biddle, Deputy Port Commander, present address unknown.

Since the last issue we learned that Lt. Marlin Savidge of Sunbury, a former Game Farm employee of the Commission for four years, was killed in the China area. He was in the Transport Command flying over The Hump, the hazards of which we have heard about so much lately.

Although not a regular employee, he was nonetheless the first service man with the Commission to pay the supreme sacrifice.

Commission Honored by Northwestern Sportsmen

(Continued from page 20)

sentatives of the Fish Commission and various staff and field employes of both departments were also in attendance. This was the first opportunity the sportsmen of that region had to meet the Game Commissioners appointed by Governor Martin.

The dinner program, under the capable direction of Seth I. Myers, Northwest Division Secretary, included a number of interesting conservation features, highlighted by a concluding address by Honorable Ross L. Leffler, President of the Game Commission.

Mr. Leffler said that by proper planning Pennsylvania may well become an important duck hunting state, just as it has become a leader in upland game hunting. He cited other marshlands in the area, which the Commission had inspected in the afternoon, as possible waterfowl nesting and feeding areas.

President Leffler paid tribute to the Commission's field officers "each of whom is doing the work of three or four men in this emergency."

He closed his address with a plea for conservation education for the youth, who will be tomorrow's sportsmen, and a plea for fathers to "see if they can't influence their boys to prefer to go hunting or fishing with them rather than going out with the gang. When you've done this, you've reached the pinnacle as a father."

Other addresses were made by Vice-President Robert Lamberton, and Commissioners H. E. Kilgus, G. I. Phillips, Harold Moltz, John C. Herman and Carl B. Rosenkrans. Each spoke on different phases of the work, emphasizing that the Commissioners are the servants of the public and are on the job for the sole purpose of serving all the people of the Commonwealth to the best of their ability. They expressed their appreciation to the leaders of the Northwest Division for the dinner given in their honor.

LET'S TALK TURKEY

(Continued from page 11)

because we had moved a log or left our car too near, or winked an eye, or some such small fact. Whatever it was, the turkeys wanted to come but did not. Each day they approached and each day, though they may have looked over every inch of the feeding area, neither my guide nor I saw so much as a head or a feather. Yet we tried every trick to conceal ourselves and to remain absolutely still. I even wondered if their sense of smell was also highly developed so that they scented us while far from sight.

The very opposite of this story happened when I had equally wild gobblers strut and mate with captive hens while I sat within twenty-five feet of them, making sketches, or walked around them to drive them to better locations for pictures.

One of the means used to raise turkeys which will keep them as wild as possible, is to locate pens in the woods where native wild Toms live. Wild turkey hens, with clipped wings, are placed in the enclosures where the gobblers can come to mate with them.

Unfortunately, the Toms usually walk to the outside of these pens and start to strut. As a result, they don't know enough to stop strutting and fly over the fence. In the wild, a gobbler struts at a distance from the hens. Only when a hen wants to mate does she go near him. It is she who must go to him. Therefore, when outside a fence, he seems to feel the hens will come over it when they are ready. Since they cannot, other means of getting the Tom into the pen are tried. Ramps of logs are built so he can strut up and over the fence. These, however are suspicious objects to him at first and he rarely makes use of them.

The best method, according to my experiences, was for two people to slowly approach the gobbler from different directions. First he would stop his strutting, then become restless, trying to go through the fence. At times he would reach a ramp and run up and over into the pen, to begin strutting almost at once as though he had no more fear of us. Some Toms seemed to be waiting for us and, as we came up, would quickly fly over the fence into the pen. Why they wouldn't do that before we came, I don't understand. And why they seemed to lose all fear of us once they were inside the pen, is a mystery. Of course, all animals and birds act less wild during the mating season. But such a complete change seems out of keeping, especially since they were much more afraid while outside the pens.

When fall came, I got even more of a surprise. We knew that many of these turkeys were in the covers, so we looked forward to unusually fine hunting. These were a true strain of native wild birds. As such, they regained all of their wildness. In eight days of hunting, we hardly caught a glimpse of these birds which, in the spring, had been so bold and easy to approach. We still-hunted, we lay in wait, we called, but the turkeys were far too wise for us. When, at last, we had two to take home, we knew we had earned them the hard way.

Such birds are worthy game for the most ardent sportsman. No one need to apologize for them. To hunt them is a great experience; to bring one to hand is a thrill long to be cherished.

Answers to WHAT'S WRONG on Page 13

1. Young woodcock, like the young of all ground nesting game birds are praecocial: i.e. they leave the nest as soon as hatched and forage for themselves. They are never fed by the parent birds; they either learn what to eat by experience or else follow their parents' example in searching for edibles.

2. A startled white-tailed deer invariably raises his "what flag" when in flight.

3. The tracks of a running rabbit show the big prints of the hind feet in advance of the small round prints of the fore feet.

4. With barn owls incubation begins as soon as the first egg is laid. Eggs are laid at intervals of 2 or 3 days. Thence, in the case of five young, the first to hatch would be nearly two weeks older than the last hatched chick. In the scene shown the downy young should vary greatly in size.

HUNTERS YOU KNEW



Arsonous Archy

Archibald Batches
Was careless with matches
And he stoked a pipe all the day thru.
He thought it just tripe
(After lighting one's pipe)
To break every match right in two.

So he followed his bear,
Tossed a match here and there,
Then suddenly sniffed at the breeze;
Now the whole place is black,
Just a desolate track,
And Archibald blazed with the trees.

CARSTEN AHRENS.

Wildlife Needs No Ration Points

(Continued from page 3)

until they have reached a size where browsing will not harm them. We can achieve satisfactory results only if we give the matter sufficient thought before action is taken.

Many interested individuals prefer to raise their own seedlings with splendid results. As an instance of this the Honorable John M. Phillips, for many years a member of the Game Commission, planted approximately 8,000 black walnuts, butternuts, hickory nuts and Russian mulberries in his Victory garden last fall. These produced seedlings which were given to sportsmen and Boy Scouts who planted them the following Spring. Latest reports indicate that most of them have survived and are growing.

Any of us can accomplish results equally as satisfactory if we are sufficiently interested in the subject. However it requires much study and effort. It likewise requires persistence because many times the results may indicate failure. This means more study and more effort.

Seedlings can be planted in either the spring or the fall, with preference generally given to the spring. Seed can be planted similarly but fall planting will eliminate the necessity of caring for it during the winter months.

Each branch of Game Land Management, and in fact conservation in general, requires the same patience, study and effort if we hope to solve our problems. These problems are numerous for Game Management alone, but when all phases of conservation are considered they are breath taking in both number and magnitude.

Game Land Management must fit into the whole scheme of conservation if we are to move ahead. Therefore, we must consider the conservation of our soils, our waters, and our forests at all times. Anything we do to better game conditions must be performed with this thought constantly before us. You can see striking examples of the abuse of each of these in any section of the State, or in fact our Nation.

It is a problem for all of us and one which we cannot afford to shirk if continued production and the prosperity it brings is to be maintained.

Many sporting dog field trails are aiding the war effort by awarding war bonds and stamps as prizes instead of the usual merchandise trophies.

Queer designations given animal and bird groups include: a STAND of plovers, a WATCH of nightingales, a CHATTERING of choughs, a FLOCK of geese, a HERD or BUNCH of cattle, a BEVY of quails and a CAST of hawks.

Remington Arms Company, Inc., leading producers of sporting arms and ammunition, once manufactured, of all things, button fastener machines for shoe manufacturers. The firm also made cotton gins.

The "Seal" coat which Milady so proudly wears doesn't come from a seal at all. It comes from a fur-bearing sea lion. There are no fur-bearing seals.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933.

Of PENNSYLVANIA GAME NEWS published monthly at Harrisburg, Pennsylvania for October 1944.
State of Pennsylvania }
County of Dauphin } ss.

Before me, a Notary Public in and for the State and County aforesaid, personally appeared Leo A. Luttringer, Jr., who, having been duly sworn according to law, deposes and says that he is the Editor of the PENNSYLVANIA GAME NEWS and that the following is to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in Section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher and editor are:

Publisher, Commonwealth of Pennsylvania, Pennsylvania Game Commission, Harrisburg, Pennsylvania. ,

Editor, Leo A. Luttringer, Jr., Harrisburg, Pennsylvania.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Commonwealth of Pennsylvania, Pennsylvania Game Commission, Harrisburg, Pennsylvania.

3. That the known bondholders, mortgages, and other security holding 1 per cent or more of total amount of bonds, mortgages or other securities are: (If there are none, so state.)

None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear on the books of the company but also, in cases where the stockholder or security holder appear upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown above is 25,000. (This information is required from daily publications only.)

LEO. A. LUTTRINGER, JR.

Sworn to and subscribed before me this 29th day of September, 1944.

LUCILLE A. STROUP.

(SEAL)

(My Commission expires Mar. 5, 1947.)



Photo by Ralph McCoy

Deputy Game Protectors John Yocum and John Allison with nice trophy bagged by former in Mifflin County first day of season last year. It was a 13-pointer.

PENNSYLVANIA GAME COMMISSION

OFFICIAL 1944 OPEN SEASONS AND BAG LIMITS

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. **On November 1 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. (See Special Regulations for hours to set traps in open counties.) Raccoons may be hunted at night, with a noon-to-noon daily limit.

UPLAND GAME (Small game possession limit three days' bag)	Bag Limits Day	Season	Seasons Open	Close
Ruffed Grouse	2	10	Nov. 1..	Nov. 30
Quail, Bobwhite	5	15	Nov. 1..	Nov. 30
Hungarian Partridges (Statewide)	2	8	Nov. 1..	Nov. 30
Wild Turkeys (See 9 counties closed below)*	1	1	Nov. 1..	Nov. 30
Ringneck Pheasants, males only	2	12	Nov. 1..	Nov. 30
Rabbits, Cottontail	5	25	Nov. 1..	Nov. 30
Squirrels, Gray, Black and Fox (combined kinds)	6	24	Nov. 1..	Nov. 30
Squirrels, Red	Unlimited		Nov. 1..	Sept. 30, 1945
Grackles (commonly called Blackbirds)	Unprotected until Sept. 30, 1945			
Hares (Snowshoe Rabbits)	2	6	Nov. 15..	Nov. 22
Raccoons, by individual or hunting party*	4	20	Oct. 23..	Feb. 1, 1945
Raccoons, by trapping (Statewide)*		20	Nov. 1..	Feb. 1, 1945
Woodchucks (Groundhogs)	5	Unlimited	July 1..	Sept. 30
Bear, over one year old by individual	1	1	Nov. 27..	Nov. 30
Bear, over one year old by hunting party of three or more	2	2	Nov. 27..	Nov. 30
Deer, male with two or more points to one antler	1	1	Dec. 1..	Dec. 16
Deer, as above, by hunting party of six or more	6	6	Dec. 1..	Dec. 16

NO OPEN SEASON—Sharp-tailed Grouse, Doves, Cub Bears, Antlerless Deer and Elk.

FUR-BEARERS—(See note under Special Regulations)*

Minks and Skunks*	Unlimited	Nov. 1..	Feb. 1, 1945
Otters*	Unlimited	Nov. 1..	Feb. 1, 1945
Muskrats (By traps only)*	Unlimited	Dec. 1..	Feb. 1, 1945
Beavers (Traps only. See 31 counties closed below)*	2	Feb. 15..	Mar. 1, 1945
Opossums	Unprotected until September 30, 1945		

*SPECIAL REGULATIONS

Turkeys—Counties of Clarion, Forest, Jefferson, McKean, Potter, Snyder, Tioga, Warren and Westmoreland closed.

Raccoon Hunting—The season begins at noon on the opening date, and ends at same hour on the closing date.

Raccoon Trapping—Traps not to be placed before 9 A. M. on the opening date (see instructions below concerning lifting traps on closing date).

Beavers—No trapping in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bucks, Cambria, Cumberland, Delaware, Fayette, Franklin, Fulton, Greene, Huntingdon, Indiana, Juniata, Lawrence, Lebanon, Lehigh, Mercer, Mifflin, Montgomery, Northampton, Perry, Philadelphia, Somerset, Washington, Westmoreland, and York. **Non-Residents may not trap beavers. One person may set, tend or operate 10 traps only. Traps must not be placed closer than 15 feet from the waterline on any established beaver houses. Pelts must be tagged within 10 days after season, and may not be sold or otherwise disposed of until properly tagged. Present them to Protector in District or County where trapped.**

Trapping—Traps for fur-bearers and raccoons not to be placed before 9 A. M. on Nov. 1, or before 8 A. M. on any later opening date for trapping. The season on the last date indicated for trapping closes at 12 o'clock noon to permit removal of animals caught on the last night of the season and lifting traps by daylight.

Snares—May be used without springpoles for taking predators from December 16 to March 31, 1945, in all counties except Allegheny, Armstrong, Beaver, Berks, Bucks, Cambria, Chester, Dauphin, Delaware, Fayette, Greene, Indiana, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Somerset, Washington, Westmoreland and York.

FEDERAL SEASONS MIGRATORY GAME BIRDS

	Daily Limits	1944 Open Seasons (Sundays Excepted)
Rails and Gallinules (except Sora and Coots), combined kinds	15	Sept. 1-Nov. 30
Sora	25	Sept. 1-Nov. 30
Coots	25	Oct. 14-Jan. 1, 1945
Wild Ducks, except American and Redbreasted Mergansers (See Exceptions)*	10*	Oct. 14-Jan. 1, 1945
American and Redbreasted Mergansers	25	Oct. 14-Jan. 1, 1945
Wild Geese and Brant	2*	Oct. 14-Jan. 1, 1945
Woodcock	4	Oct. 14-Oct. 28

*Exceptions—In addition to the regular daily duck limit of 10 (which shall not include more than one (1) Wood Duck), 5 Mallards, Pintails or Widgeons, either singly or in the aggregate, may be taken. In addition to the daily limit for Geese and Brant, 4 Blue Geese may be taken.

Possession Limit—Ducks, Geese, Brant, and Woodcock, twice the daily bag (except on opening day), but only one (1) Wood Duck and the daily limit of American and Redbreasted Mergansers. Other migratory game birds, daily bag only. Possession 45 days after season.

No Open Season—Wilson's Snipe (Jacksnipe), Doves, Ross's Geese, and Swans.

Shooting Hours—(Eastern War Time). All migratory game birds: From beginning of respective open seasons to October 31 inclusive, one-half hour before sunrise to sunset; November 1, 9 A. M. to 6 P. M.; November 2 to end of respective seasons, 8 A. M. to 6 P. M. (unless sunset occurs earlier, when Federal sunset regulations automatically applies). **Exception:** On the open waters of Lake Erie the Federal one-half hour before sunrise to sunset regulation applies throughout the waterfowl season, except on November 1, when shooting before 9 A. M. is unlawful.

(AS FIXED BY COMMISSION AT MEETING ON MAY 6, 1944)

PENNSYLVANIA Game News



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PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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COMMONWEALTH OF PENNSYLVANIA

EDWARD MARTIN, Governor

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VOL. XV, NO. 9

EDITORIAL

December, 1944

THE MAGAZINE "Outdoor Life," through a series of advertisements, recently brought to the attention of conservation agencies and the general public throughout the country that we are now facing the most serious problem in the history of wildlife conservation.

In the past few months we have been spurred to new optimism by the war news. It is good. And we keep thinking, with hope in our hearts, "It can't be too long anymore!"

But when it *is* over, the hard-earned victory won, and our war-weary boys come marching home, our conservation program will be challenged as it has never been challenged before.

Army records show that before induction into the armed services, less than 2% of our men had ever handled a firearm. When these boys return they will be highly skilled and impatient to try out this new accomplishment in our fields and forests, eager to breathe the fresh, clean air of their own free land, and enjoy the soul-satisfying pursuits of the great out-of-doors.

Records also show that after World War I, the increase in hunting and fishing was over 30%. This has been a longer, tougher war than the last. We know that when it is ended the need for relaxation will be greater. So let's face it. Can our conservation program stand this new onslaught of hunters and fishermen who will soon be coming home?

We sportsmen on the Home Front have been donating blood, buying bonds, helping the farmers with their harvests, aiding the salvage campaigns. We will continue in these endeavors until the war is won. But this big problem of furnishing the boys with the sport they have fought for and dreamed about on distant battlefields must certainly not be neglected. It is our own personal problem—a challenge to each and every sportsman of the State and of the Nation.

Our boys are doing their part, bravely and nobly. They have not failed us.

And when their part is done and they come back to their hard-earned rest, we here at home must show them a conservation program that will tell them plainer than any fancy words that we, too, have kept the faith.



Merry Christmas~Pennsylvania Game Commission



As Old Man Winter wraps his icy tentacles around us and snow covers hillside and housetop, as Christmas carols echo everywhere, we like to think for a bit about our far-flung circle of friends—sportsmen friends, farmer friends, other friends who have helped us steer the ship of conservation during the past twelve months. We like to think about those in the camps and far-flung battlefronts who are with us in spirit and who we pray will soon take their places by our side. We like to think about those who have contributed so much interesting material to our little publication. It has become a fine morale builder for those in the service. We like to think of these and many other pleasant things as old 1944 draws to a close. Especially do we like to think that all of our friends will be with us again next year.



Photo, Department of Highways

Pure waters lure vacationists by the hundreds every year. Some like to boat, some to bathe, others to fish. Above is Promised Land Lake, Pike County.

In the Beginning

By Hon. Ross L. Leffler*

The following is the first address delivered by the President of the first chapter in Pennsylvania, at the first convention of the Izaak Walton League at Williamsport in 1924, held for the purpose of reforming its ranks and establishing a long term policy regarding the Commonwealth's conservation program. The League's accomplishments since then are adequate testimonials of the progress it has made, and will continue to make.

THIS initial meeting for the formation of a new state division of the Izaak Walton League of America, will surely mark an epoch in the annals of the grand old state of Pennsylvania, along the lines of outdoor activities and conservation, and cannot other than bring about an immeasurable amount of good in our steady advancement towards the outdoors of our forefathers.

In order to accomplish the greatest ideal ever dreamed of along these lines, we must have harmony. The beauty of our beloved outdoors alone strikes a responsive note in our hearts, and as we work together to preserve and enlarge this vast wealth—if each chapter tunes in and plays its key in perfect harmony, then the Izaak Walton League will have achieved its purpose, broadcasting to the world a beautiful strain that will echo and re-echo through all time.

When those whose untiring efforts made this convention possible very graciously suggested my name for a place on the program, my first thought was to decline as I could not understand why such a signal honor had been conferred upon one of my ability. Now as I look over this splendid gathering of sportsmen and conservationists—men and women who unselfishly give their time to this all important movement, I wonder all the more why I was selected, and I cannot let the opportunity pass without assuring you of the appreciation and whole hearted thanks—both of McKeesport Chapter No. 1, of which I have the honor to be president, and myself personally.

Our chapter while not as numerically strong as some of the others, makes up for its lack of numbers by genuine interest and willingness to further the cause, and I sincerely believe we can be proud of our achievements. Recently a splendid chapter was formed in Pittsburgh so Allegheny County now has two chapters, and, before another year rolls around there should be that many more. I have likewise every confidence that the number in the state will at least double.

My friends there is work to do—work for all of us—hard work, too, but the ultimate re-

(Continued on page 26)

* President, Pennsylvania Game Commission.



High Stakes

By Clarence F. Walker

Photographs by

Lindsay M. Griffin

Continued from Last Month

IF ONE assumes that the Oriential Chestnut will resolve itself into an "orchard" tree requiring orchard care, such as cultivation and fertilization, he will at once appreciate more fully the reasons for the rather disheartening results of the past. This would eliminate this species as a forest tree and decidedly change its value from a game management angle. Planting of it would be restricted to cultivatable areas—areas readily accessible to machinery. This fact, however, would little affect those interested in growing them commercially.

It is apparent that in the growing of Oriental species of chestnuts we were influenced by the known requirements of our native specie (castanea dentata). This particular species was extremely tolerant under a host of conditions which proved immediately fatal to the introduced species. Where the latter species was called upon to compete with growth found in the average woodlot or forest it was found wanting. Where the Oriental species would sulk, languish, and finally die, the native dentata would flourish and outgrow its nearest competitor, soon commanding almost complete control of the area wherein it grew. The ability of these species to regenerate itself naturally under conditions which discourage and destroy less vigorous species is to my observation one of the important and fundamental differences. And, as has been pointed out before, the second great difference is that of tolerances. Where the caribou of the North can subsist upon the lichens and mosses dug from covering snow, the Jersey cow of the average farm yard would perish over-night. To keep her alive under conditions of the far North we would be required to give her sufficient shelter and food in quantity and quality she inherently must have. Likewise, if the Oriental Chestnut cannot endure the multiple conditions as found in the Appalachian section, we will be required to adjust those conditions as much as possible to meet the minimum requirements of the species grown. Since such a decided difference in growth has been found in favor of the cultivated plantings, it seems but reasonable to proceed with cultivation as a part of the program. It seems also that in the absence of good fertile soil we can lend assurance to faster, healthier growth by a consistent program of fertilization.

There are three ways one might begin the establishment of a chestnut planting. First, by planting seed; second, by the purchase of seedlings; and third, by the purchase of grafter trees which are usually named or numbered sorts. In the planting of the latter, the characteristics of a certain tree are retained and have been multiplied into a few or many individual trees. They will not differ in any respect from the trees from which the graftwood (scions) were taken. The process of cutting wood from the original tree may go on indefinitely and living counterparts of it may be grown by the thousands, but none of them will exhibit any characteristic except as shown by the mother tree. Therefore, if a grafted tree is secured from a reliable nursery or individual, your source should be able to tell you just what to expect in the manner of growth, bearing age, size of fruit, productiveness, resistance to disease and many other characteristics about which you may inquire.

Seed may be secured as a start for those who would travel uncharted paths in plant development while keeping an eye on the ever present factor of economics. Seed may be secured at prices ranging from .50c to .75c per pound. The various sizes, colors, shapes and qualities gives one a faint glimpse into the future, becoming more apparent as the trees develop. Seed sizes may vary somewhere between 50 and 90 seeds per pound, or even beyond these numbers in either direction. In purchasing seed it is good practice to insist and secure that which is gathered and shipped promptly after ripening. These dry out quickly and once they become dry and hard they are useless for planting purposes.

Upon receipt, they are immediately "stratified." This is simply packing them in sand, peat moss or some other medium which will retain moisture and prevent subsequent dessication of the nuts. A layer of sand or peat moss alternated with layers of nuts placed in a box, barrel or crate and placed in a cellar at low temperature will hold them over the winter months very nicely. The medium should be moist before packing begins. Any storage place which can be kept at about 40 degrees is ideal. Lacking any such facilities, the stratified nuts may be buried in the ground (in boxes) and covered with earth. Straw or leaves over an earth mound will tend to carry off excess water. It is important that the seeds have complete drainage at all times. Freezing will not injure them. If, however, nuts are placed out of doors it is imperative that the container in which they are stored be covered with wire or other protective material, because nothing will so delight rats, mice and other rodents as a box-full of chestnuts in winter.

As soon in the Spring as the soil can be worked, the nuts may be planted in rows for seedling growing. With the advent of warm weather they will quickly appear above ground. Cultivation then need not

(Continued on page 27)

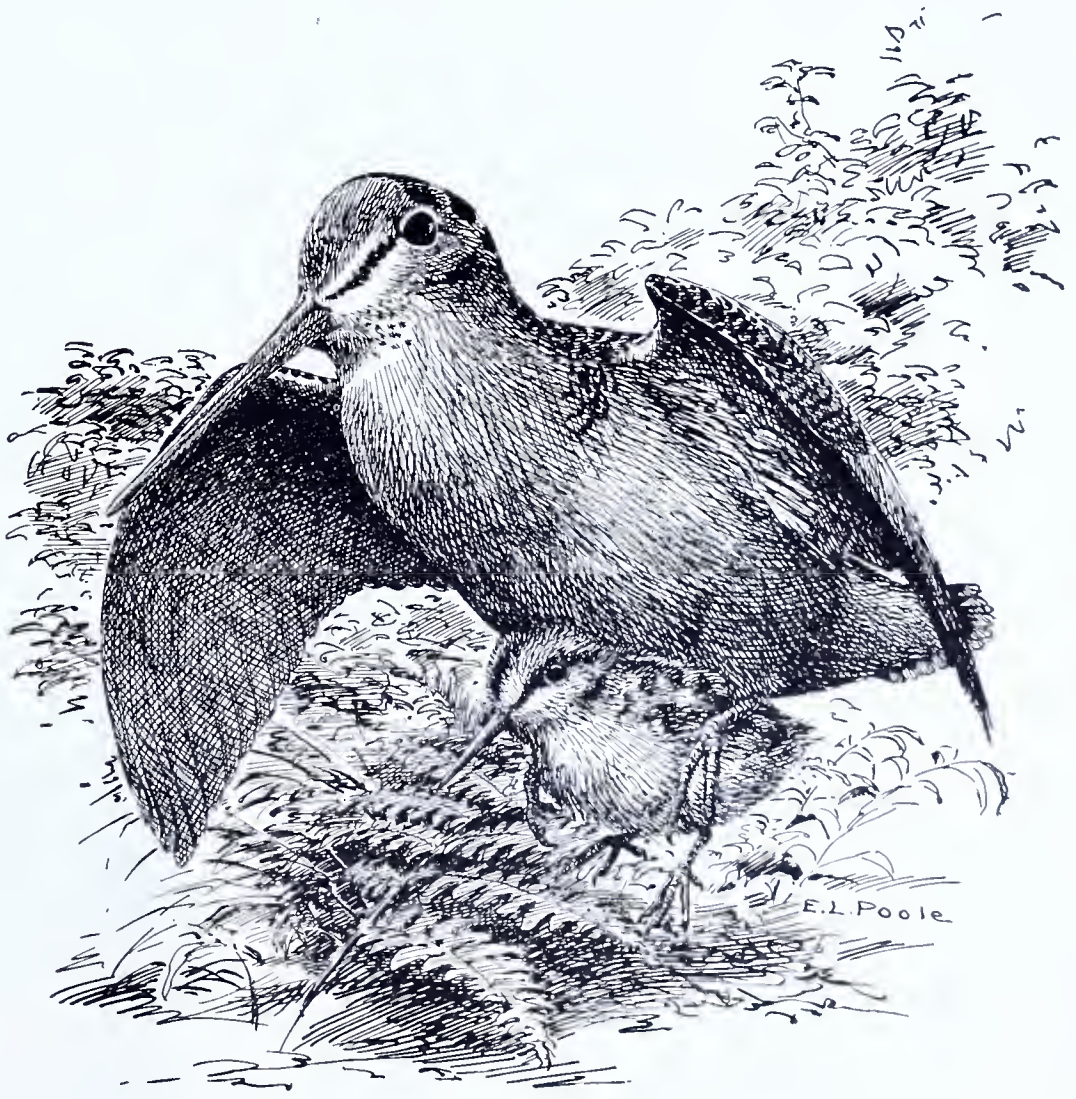
The Ecology and Management of the American Woodcock*

By Howard L. Mandall and Clarence M. Aldous



COMPREHENSIVE report on investigations undertaken to develop management measures that might warrant retention of the woodcock upon the game list. The study areas and the methods employed are described; local investigations in Maine were supplemented by questionnaires covering the entire range of the bird. In search of a means of determining sex in this rather uniformly plumaged species, the authors found that length of bill was the most dependable criterion. It is longer in females. Individuals of that sex also average heavier but there is too much overlapping of weights for this characteristic to be very reliable. The woodcock has withdrawn from the extreme western edge of its maximum breeding range but still nests practically throughout the eastern United States. It winters in southeastern states, most abundantly in Louisiana. A valuable section of the publication is composed of summaries of the status of the woodcock in each of the Canadian Provinces and Usonian States in which it has been recorded in recent years. Migration and migrating routes are discussed. The flights appear to be leisurely and near the ground—so much so that mortality from flying against obstructions is a serious limiting factor. Courtship behavior, including the flight song of the male, is dealt with at length as it appears that successful management may center largely about the singing grounds. The authors conclude that for all practical purposes the woodcock is monogamous. Singing grounds, as a rule, have slight ground cover, are nearly flat, and are within 100 yards of the edge of the male's diurnal territory and of the nesting cover. Both the singing grounds and the nesting sites are seldom less than 200 yards apart. Clutches vary from 3-5, and average 3.94, eggs each. The period of incubation averages 21 days. Hatching success in 6 years averaged 61.8 percent, probably lower than normal as some of the losses were due to study operations. Major factors in nest destruction were predation and interference by man or dogs. There is no authentic record of the rearing of a second brood in a season. At 25 days the young are practically full grown. Juvenile mortality is low.

Treatment of food is largely review of the literature but a report upon the contents of 20 Maine stomachs is included. Animal food constituted 94.15% (of which earthworms were 86.05%) of the food. Feeding habits are rather fully described. Cover preference is discussed; it is predominantly for alder at all seasons in Maine. Cover in other regions also is considered. Management depends upon knowledge of numbers and the best means of estimating those of woodcocks is from count of occupied singing grounds. Banding methods are described and the returns summarized. As to causes of mortality the authors say that, "The sportsman has long been the most important factor in limiting the numbers of woodcock." Illegal hunting, important at some times in the past, is regarded as not excessive at present. Aside from the hunting kill, accidents and at times fires and climatic severities are important checks; predation, except by the domestic cat, seems unimportant. Diseases and parasites, sex ratios, and population trends and densities also are treated. The section on management is summarized as follows: "It is believed that the woodcock may be legally hunted and still maintain its existence if the sportsmen cooperate and if they are willing to abide by certain necessary restrictions. A careful determination of the proper season, annually, should follow accurate census studies and checks of breeding success. Changes in protective regulations will depend upon yearly populations. The importance of locating census areas immediately in all important parts of the breeding range cannot be overestimated. It is recommended that a series of refuges under State or Federal sponsorship, with permanent or temporary boundaries (depending on whether or not cover improvement measures will be carried out), be established throughout the range of the woodcock with the emphasis placed in concentration areas and in localities where hunting pressure is heaviest The improvement of woodcock habitat may be carried out by several methods: (1) The creation of artificial singing grounds in areas where a deficiency of natural clearings exists—such as large tracts of unbroken young woodland. (2) The creation of new covers and preservation of existing covers by thinning and selective cutting or by clear cutting and controlled burning. (3) The control of fire. Fire can be a useful tool in woodcock management, but when uncontrolled, may wipe out countless management efforts. Spring burning of agricultural land should be discouraged, and all possible protection be taken against forest fires." Four-page bibliography. A much needed and informative paper.



*Results of a study made by the Maine Cooperative Wildlife Research Unit.



As soon as any bullet leaves muzzle of rifle, it begins to fall away from line of bore. A bullet so aimed will miss the target.

The How and Why of Hunting Sights

IF YOU are a one-trip-a-year hunter, or a volunteer in your local home guard outfit, or just a fellow who owns a rifle and likes to shoot it, this article has been prepared for you.

How about those sights? Did you sight the rifle in and adjust the sights when you got it, or are you still shooting with the "factory adjustment?" Did you resight it after changing ammunition that time? How about allowing for bullet drop on long shots, and estimating distances—on deer or Japs! All of these things are easy to learn, and once you do get them in your mind, they'll stick from now on.

First of all, there are some basic facts to remember about bullet behavior—things that happen to all bullets, from .22's to the big Army rifles. These things affect the little matter of putting a shot on a target without too much guess work. Here they are.

When a bullet is fired from a rifle it starts to drop to the ground just as soon as it leaves the barrel. Like any other object it starts to drop slowly, and as it drops its speed of drop gradually increases. It may only drop a quarter-inch in the first hundredth of a second, but it will nonetheless drop about 16 feet in its first second of flight. Of course while the bullet is dropping down it is also flying forward very fast so that it does not strike the ground under the barrel, but at a point way to the front. Therefore the path of a bullet through the air is always a curve, and this curve is called the *trajectory.*

Thus if the barrel (really the bore) of a rifle is aimed straight at a target any distance away the bullet will not strike the target, but some distance under it. In order to strike the target we must incline the barrel upward. The greater the distance of our target the greater must this elevation be to compensate for the greater drop of the bullet. Rear sights on American rifles are graduated with steps or marks so that when we find our correct elevation for a certain distance we can make a record of it and be able to set the sight at that adjustment again.

An attempt is usually made to sight every rifle in at the factory for some minimum distance, usually 50 yards (200 yards with a high power rifle). But this adjustment will not often be right for the shooter who buys the rifle. It is for a certain make and lot of ammunition, and for the eyesight and manner of aiming and holding of the tester at the factory, and the future owner of the rifle won't have the same sort of eyes. Moreover, between the time the rifle leaves the factory and the time it reaches you its sights are often moved or banged against something. So when you buy a new rifle you always have the job of adjusting the sights.

The commonest type of rear sight is a plain open affair having a sliding elevator cut with steps. Sliding the elevator to the rear raises the sight one step at a time. Each of these steps usually elevates the rear sight the equivalent of about 5 inches at 100 yards. There is sometimes a plate on the standing portion of the sight leaf which can be slid up and down for elevation and set by means of a screw for finer adjustment than the steps will permit. There is no certainty or accuracy about such adjustments, and you have to shoot to find the effect of any move. Other slightly better peep rear sights have graduations stamped on them. With such sights we have to measure the distance between each graduation and then calculate its adjusting value.

The best rear sights are graduated in "minutes of angle" and can be adjusted with precision according to tables of angles of elevation. If a certain adjustment causes your bullets to strike say 4½ inches low on the target, you can adjust the sight instantly and with certainty so that your hits average just 4½ inches higher.

With all sights there is a certain principle of adjustment that every shooter must remember. *"Move your rear sight in the direction you wish to move your hits."* Thus if you wish to raise your shots you raise your rear sight, or if you wish to move to the right you move your rear sight to the right.

Now we must put up with a little arithmetic. Don't let it confuse you because it is only a simple case of proportion. Say we find on shooting our rifle at 100 yards that the bullets are hitting 8 inches low. How much must we raise the rear sight to correct for this error?

Measure the distance between your front and rear sights. Say you find it to be 24 inches. In 100 yards there are 3600 inches. Divide 24 into 3600 and you get 150. Then any move of the rear sight you make will move the center of impact 150 times that much on the target at 100 yards. If you raise the rear sight 1/25th of an inch, it will move the center of impact 6 inches at 100 yards, or 12 inches at 200, or 18 inches at 300 yards.

Suppose your rear sight is graduated and the distance between front and rear sights is 30 inches. By measuring the graduations on the sight you find, let us say, that there is just a quarter of an inch between the long graduations. This distance is divided into five parts by the shorter lines. Therefore each of the smaller graduations is 5/100ths of an inch apart. We apply our rule and we find that one of the small graduations will raise or lower the center of impact 6 inches at 100 yards, or 12 inches at 200 yards and so on. We could perhaps see to move this sight half a graduation, but even this would give us a change of 6 inches at 200 yards—not very good for a fine rifle that is supposed to be capable of staying in the 4-inch 10 ring at that distance. With just a little intelligent practice you can work up to the point where you can hit much closer than 6 inches at 200 yards if your sight permits of accurate enough adjustment.

Minute of Angle Adjustment

Now let us turn to the "minute of angle" sight. First of all, a rifle shooting the .22 Long Rifle Regular cartridge requires angles

By Colonel Townsend Whelen

Reprinted Courtesy The American Rifleman

of elevation of 15, 33, and 54 minutes to compensate for the drop of the bullet at 100, 200, and 300 yards. A minute of angle means 1.047 inch at 100 yards. For simplicity we call it an even inch. Thus a minute is an inch at 100 yards, 2 inches at 200, 3 at 300 or 6 at 600. Elevating our sight 15 minutes at 100 yards thus means raising our hits 15 inches—the amount of the drop of the bullet at that distance. As we have said, our best sights are graduated in minutes of angle, and many of them are capable of being adjusted, recorded and read to quarter minutes. A quarter minute change of course gives just one-fourth of this adjustment or ¼ inch at 100 yards. Simply memorize the rule "*A minute equals an inch for each hundred yards of range.*"

Here is a table of angles of elevation which you can use in adjusting minute of angle sights:

	100 Yards		200 Yards		300 Yards	
Cartridge	Drop. Inches	Angle of elev. Minutes	Drop. Inches	Angle of elev. Minutes	Drop. Inches	Angle of elev. Minutes
.22 Long Rifle Reg. M. V. 1100 f. s.	15	15	66	33	162	54
.22 Hornet M. V. 2600 f. s.	2	2	9.4	4.7	34.5	11.5
.30-'06 M2 M. V. 2700 f. s.	2	2	9.0	4.5	22.5	7.5
.220 Swift M. V. 400 f. s.	.5	.5	2.0	1.0	9.0	3.0

Minute of angle sights are constructed on the same principle as the machinist's micrometer, thus making them quick and easy to adjust, to read and to make a record of. The Lyman No. 48 sight illustrated is typical of all of them. The slide is graduated with lines which are five minutes apart. The screw head at the top is graduated around its circumference with longer lines numbered from 0 to 4 which are minutes, and also with shorter lines in between which are quarter minutes. Turning the screw head one complete revolution moves the sight up or down five minutes. Turning it through one of the longer graduations, that is from 0 to 1 moves the sight one minute. The sight is easily read. If the index line on the slide points a trifle less than half-way between the 10 and 15 lines on the slide, and the No. 2 line on the screw head is in line with its index we have 12 minutes of elevation, that is, the reading on the slide plus the reading on the head. All other minute of angle sights are on the same principle.

Many of these sights click for each quarter minute, and you can feel every time the head passes a quarter minute, and the sight can be clicked up and down by feel. For this reason riflemen often call the quarter minute a "click." A click is of course equivalent to a change of a quarter inch per hundred yards. When you are shooting to place all your shots in the X-ring of the small bore target (1 inch at 100 yards) a quarter minute adjustment becomes a highly necessary refinement.



Use of elevating rear sight actually raises muzzle of rifle, causing the path of bullet and line of sight to coincide at target.

Sighting In

Now for the application. Suppose you have a brand new rifle to sight in. You are not sure that the sights were adjusted at the factory, and anyhow you or someone else has probably monkeyed with them since it left the manufacturer. If it is a .22 rim-fire rifle you will probably want to sight it in for a minimum distance of 50 yards; if it is a high-velocity center-fire rifle you will probably want to sight it in basically for 100 yards. Now, if you start to sight this new rifle in at 100 yards the sights may be so far off in adjustment that you could fire 50 rounds, adjusting the sight every two or three shots, before you finally found an adjustment that would cause a bullet to strike the target. So with a new or unknown rifle, to save ammunition and time, set up a full sized 100 yard target at only 10 yards. At this short distance your first shot will almost certainly strike somewhere on the large paper target, no matter how much the sight is off, and you will then know in what direction to move the rear sight to place the next shot closer to the bullseye. Have the bore and chamber of your rifle wiped clean and dry. Fire on the 10 yard target from a steady sandbag or bench rest. Suppose the first shot strikes 4 inches below where you aimed. At 10 yards a minute has an adjusting value of 1/10 inch. Therefore screw your rear sight up 40 minutes and shoot again. Now your bullet should strike just where you aimed. You can now take the target back and tack it up at 100 yards with the assurance that when you fire at it your bullet will surely strike somewhere fairly close to the bullseye. At 100 yards you now fire these shots at the target. Suppose these three shots make a little triangle, and the center of this triangle (center of impact) is 3 inches above where you aimed. Lower your elevation 3 minutes and shoot a few more shots. These shots should strike where you want them to. Now your rifle is sighted in for 100 yards *for the particular make and lot of ammunition you used,* and for *your manner of aiming and holding.*

Now look at your sight. Let us say that it reads 38 minutes elevation. Such a reading is inconveniently high. So you unscrew the little index plate on the side of the sight and slip it up until it points between the zero and the five graduations on the slide, and clamp it there. Your sight now reads 3 minutes, slightly more than zero on the slide, and 3 on the screw head. In your note or score book you now set down "For 100 yards with such and such ammunition, shooting from sandbag rest, elevation is 3 minutes."

This 3 minute elevation is now your starting point for other ranges. Suppose you have been shooting a .30-'06 rifle using M2 ammunition. From the table at the beginning of this article you will see that the angles of elevation are 2 minutes at 100 yards, 4½ minutes at 200 yards, and 7½ minutes at 300 yards. You have just found that the basic 100 yard elevation for your individual rifle and the ammunition you used is 3 minutes. Therefore your 200 yard elevation should be 5½ minutes, and for 300 yards 8½ minutes.

Thus far we have considered shooting to strike exactly where you aim. If you aim at "6 o'clock," on the bottom edge of the bull, and yet you wish to strike in the center of the bull, supposing the black aiming bullseye is 6 inches in diameter at 100 yards, then you should add 3 minutes to the above elevation to bring your center of impact up 3 inches to the center of the bullseye.

Windage

So far we have consdered elevation only, that is, up and down adjustment. Lateral adjustment is just as important. You can miss the target by shooting to the right or left of it just about as easily as you can miss it up or down. Therefore a good rear sight must have lateral or windage adjustment as well as elevation. The principle of lateral adjustment is just the same as that for elevation. Move the rear sight in the direction in which you wish your shot to strike.

Most minute of angle sights have the windage scales graduated with lines that are four minutes apart, because military sights were originally graduated in this manner, and windage tables are prepared for such graduations. The head of the windage screw is graduated with 4 minutes around it, and also frequently with quarter minute lines. The 4 minute graduations on the scale are often called "points." One point equals 4 inches at 100 yards. An

(Continued on page 30)



A Hunter's Day

By JACK ANDERSON

Illustrations by Harold Bush

THE forest was still except for the steady dripping of dew from the leaves to the foliage of the forest floor. Mist glided silently through the rhododendron growth a short distance below my deer stand. Their leaves were curled by the cold. I kept thinking that I had enjoyed my "hunting" very much more by a cheery fire the night previous (when all four of our party talked a good hunt) than now, in this extremely damp December weather. And then, abruptly, a twig snapped.

My heart leaped suddenly. Slowly, steadily, I raised my rifle . . .

"Show yourself, my proud beauty," I thought. Grand visions of a great-antlered old buck were mine. Perhaps this would be the old fellow I had seen dozing while knee-deep in a pool of the Bushkill river before the season. That veteran had looked like the lord of the mountains. I remembered the sight of his huge, strong-muscled body, his sensitive and quivering nostrils as he had sighted me; and I recalled the magnificent long leap into the brush beside the stream and the pounding of his hooves as he had fled into the forest.

A twig snapped again.

"Where in the devil are you?" I said to myself, giving a careful study to the forest ahead. I saw a flat swamp-land, stretching away into an infinity of mist. I saw a flock of white-tailed juncos, flitting by in groups, chattering lightly. I saw still grey birches. I saw a dead, dark mass of vegetation that blanketed the ground, and intricate webs of laurel and rhododendron. And I knew that my practiced eyes would omit little. If a deer was about, I'd spot him. As the dew dripped on, slowly, steadily, I slowly and very carefully surveyed the country ahead.

A twig snapped once more.

And then—

Ah, there he is, I thought. What is it, off there in the mist? It's something, moving. What is that, anyway? Looks like a deer. Or is it? Look for the horns, sap. See if it has horns. It looks like something with horns. See that thing sticking out of its head? Sure it has horns! Shoot the son-of-a-gun!

I brought my rifle up, slowly.

But I remembered the old man's story, told by a crackling cabin fire.

"Do I get a bang out of deer hunting? You can bet your top-priced boots I do! There ain't a man here who likes it better'n I do. But I'm all washed up. I'm through for life. Since my old pal, Bill Jones, turned in his surplus shells to the Great Hunter, I ain't hunted a minute.

"We were up on Nigger Ridge, in Monroe County. It was the opener. There were more hunters in that woods than Gimbel's bargain basement a week before Christmas. There were all sorts of guys in the woods. There were real sportsmen there. There were pot-hunters full of boisterousness and moonshine. There were factory workers who had never fired a rifle in their lives.

"It was a damp, foggy day. It was the kind of a day that's like a compromise between night and day. Before seven, hell bust loose. I never heard such shooting. You could hear a deer coming way up the valley and you could trace his path by the shots. It was like a war.

"I was excited, Who isn't, opening day? A guy is shaky, first time out, after twelve months, on the trail of our real big game. Many times I remember quivering hands with a grip on cold steel and my eyes ready every heavy minute to spot out those antlers . . .

"I had posted Bill Jones by an old chestnut snag, back where Nigger Ridge ends and a great laurel swamp begins. In my mind's eye, I saw Bill there. I visioned him, whiskers and all, crouched patiently by that old snag. I loved that vision, too. It was a great comfort to know Bill was there. A hunt wasn't a hunt, without Bill.

"I heard a twig snap. My heart leaped. At the moment, rifles ceased their cracking. I heard nothing distant. My whole world was that snapping twig, my rifle, and me. . . . A deer! This was a deer. I knew it. A buck. My big shot, at last. After years of waiting.

"I saw him, out there in that terrible mist. I swear I saw him! I saw his antlers. I saw his body. I couldn't be wrong. I

raised my rifle, got him in my sights. I pulled the trigger.

"That big buck fell, gentlemen. But it wasn't a deer. It was . . . Bill Jones. Authorities exonerated me, but I'll never hunt again. I'm through for life. Take it from me, boys—for God's sake, be sure your mind ain't playing tricks in your excitement. Be sure before you pull the trigger!"

Yes, I would never forget the old man's story. I knew how clearly a mind could paint a picture and credit it to the eyes. I knew, and I wanted to be certain. I did not want to forsake the trail because of a mistake. My senses must record, I thought!

And a minute later, my old friend Rich Scholl stepped out of the mist, with the laps of his lambskin cap flapping over his ears!

I swallowed hard. "What did you leave your stand for?" I asked, rather gruffly.

"To get a match, damn it."

"What do you want with a match?"

"To build a fire. My feet are froze! The next guy who tries to sell me rubber hunting boots will have quite a chore on his hands."

"I don't notice the cold."

Abruptly, rifles began to crack in the stillness. Earlier in the morning, rifles had cracked everywhere—except near to our party's stand. Now, rifles cracked closer to us. Davey Krauss had a stand at the rock cap, a half-mile beyond. Hallman stood between Davey and myself. This was the second day of hunting season, 1936, in Pike County of Pennsylvania's Poconos. All of us had started out in Hallman's Dodge very early this morning. All of us had entertained high hopes. On the opening day, hundreds of bucks had been killed.

"You better get back to your stand," I remarked.

"Yeah, I better had. Oh! My feet are cold."

"Don't think of it. And get out of here, will you? I want a shot!"

Rich Scholl hurried away, mumbling about his feet.

Now, the mist cleared. The sun, very weak at first and not quite showing its face through thin clouds, indicated it was mid-morning. After a time the sun burst into full view out of a little patch of blue sky. The clouds were breaking. Dew stopped dripping. A deer drive started on some far-off hill, thin voices bleating mournfully. I could see in my fancy the erect head of some listening deer, the pricked ears, the wide frightened eyes. And then a rifle cracked, nearby.

Another rifle cracked.

A twig snapped. I heard hooves pounding.

My heart pumped fast. I turned quickly. I saw a big doe bounding off behind me, headed at an angle. There was another deer, farther away, running. Doe or buck? I couldn't see.

Another rifle cracked. It was Rich Scholl's rifle, I thought. I heard the scream of the bullet. He had missed. I saw the deer—both of them—turn. I saw wide, staring eyes. But I still did not see horns.

Then suddenly, I caught a glimpse of a third deer. This animal was still farther away from me, and walking. I say walking. This expression is short of truth. This animal was more like a phantom, stealing furtively and silently through the most dense sections of forest. It paused once and again to listen, then faded behind the trees like a wraith, cat-footed and without sound.

The creature had been the buck, I knew, although I had seen no horns.

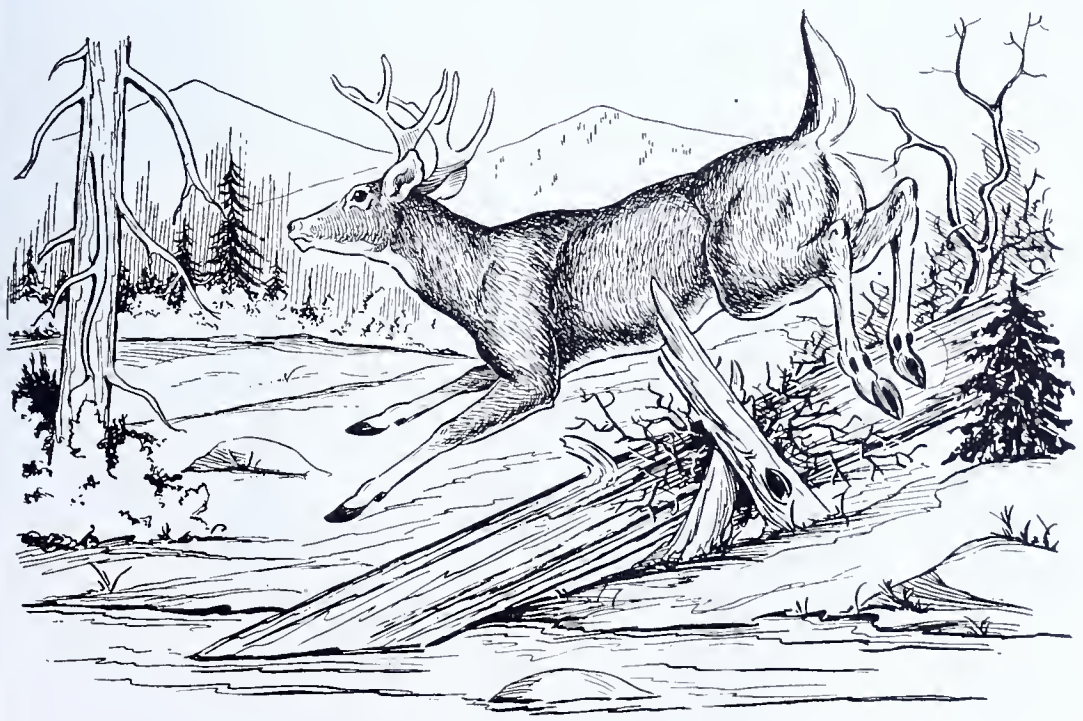
I have heard much of long-distance shots at buck deer. I have no doubt of the veracity of these tales. With favorable background, I do not question quick recognition of horns. But in this case, I could find no rack—and I assure one and all of my diligence of search. Also, let me remark that my eyes are 20-20 and have since looked down the barrels of numerous Springfield 03's and Garand M1's. But those deer disappeared into the underbrush without one glimpse of a set of antlers.

Shortly after, I heard one shot. And this time, knew definitely who had fired.

Davey Krauss had gotten his shot!

"One dead deer," I told myself.

I had recognized the report of Davey Krauss's "cork gun." This rifle was calibre 25, now illegal* for big game but then entirely within law.



After this report, I heard voices. Then came two blasts on a whistle. It was our signal. There had been a kill.

When I arrived on the scene, the gutting was done and the deer tagged. Hallman and Davey were busy building a "drag." Rich Scholl was apparently still on his stand.

I helped to tie the deer for the haul to the road, a distance of two miles. It was a six-point buck, shot cleanly through the heart with as pretty a shot as one could wish to see. The deer had been walking through laurel thicket, visible and invisible by turn. Davey described the shot with all its details.

I said nothing, but I knew exactly how that old buck had been sneaking along. I had seen.

After Rich Scholl had come in, Hallman said, "Let's get started on this job. Frankly I'd be in favor of eating the beast here to save ourselves some work."

"That's a beauty of a deer!" Rich Scholl said. "And Davey's the one said 'This ain't no day for deer. We should be carp fishing instead.'"

Rich looked rather longingly at the deer, and I had an idea. I didn't say a word—then.

It's a long haul, through cold and dampness and gathering gloom, across swampland and rocky stretches and ridges, with a hundred and sixty pound deer. It was a long and cruel task, I remember. We alternated, dragging the deer and carrying rifles. And it grew steadily colder. A cold wind blasted out of the north; the sky filled with swift, purple-black clouds, and snow flurries danced crazily in the air. Finally we halted to rest, and Davey suggested a fire.

We leaped to the task, carrying fagots to a tiny flame that a match and a few dead twigs had brought to life. A few gummy slabs of pine produced a leaping crackling fire. And then our tongues loosened. A campfire will loosen tongues.

"How come you missed that easy shot you had at Davey's deer?" I asked Rich Scholl, when he was least expecting the question.

"What shot?" he countered, smiling.

"What's this?" demanded Hallman. I didn't hear anything about a shot!"

Rich stepped away from the fire, his eyes full of wood-smoke. He was laughing.

"Come on! Out with it!" cried Davey. "Let me count your shells. You had ten shells to start out with."

"Oh, all right, you blood-hounds! I did have a shot. And I'd have a deer, too—except for these confounded rubber boots!"

"Rubber boots! What has that to do with missing this buck?"

"My feet, darn it! My feet were so cold I couldn't stand it. It was the ground was so cold, I figured. So I climbed up a big oak tree to get my feet off the ground. I sat on a limb about ten feet off the ground with my rifle on my lap. I was sitting on this limb when the buck came into sight. He stood still not fifty yards from the tree. I couldn't aim, confound it! I knew I was going to fly out that tree, too. But I aimed as best I could and pressed the trigger."

"You missed him," Davey said.

"I don't know. I suppose so. What be-

* 22 cal and 25 cal rim fire illegal; center fire legal under present law.

(Continued on page 30)

The Stove-League Reconvenes

By W. C. Shaffer

In the October issue the author presented some pertinent facts on hunting accidents, cleverly interwoven with some back woods fiction. As you recall he promised a sequel. Here it is.

A GLANCE at the calendor showed it was June 7. Ninety-seven days had passed without a word from Charles H. Freeman.

"I didn't think he would be back," mused 'ole man Thompson to himself.

"Speak of the devil and he's sure to appear," said old man Thompson to the man in the car who had just pulled up to the gas tank. It was Freeman, sure enough.

"Glad to see you Mr. Thompson," said Freeman, as he extended his hand, where it was cordially met by the storekeeper.

"Where's everybody?" questioned Freeman.

"Most of 'em fishin'—couple out back of the store pitchin' horseshoes, I guess," he replied.

"I'll need some gas and oil, too," remarked Freeman.

"Your not a goin' to leave right away, are you Freeman? It's a little after four and the boys will all be up here this evening, 'specially if they know you are here," reminded Thompson.

"Why hello there, Bob," remarked Freeman to Bob Darr, who had just come from the back of the store—still holding two pairs of horseshoes.

"Glad to see you back," remarked Bob.

"Boys gettin' together tonight?" inquired Freeman.

"You bet," replied Bob. "They want to have that discussion you promised on ways and means to prevent hunting accidents."

"I'll run on up to the next town, get something to eat and come back about seven," said Freeman.

"You'll do no such thing," responded Bob. "You're coming down to my house for supper—we don't have much but you're welcome to it."

"Thanks, and I'll accept your invitation if it won't be too much trouble," Freeman replied.

"No trouble at all. My wife's sister's livin' with us now—kinda helps out a bit," Bob explained.

"Okay, jump in the car," suggested Freeman.

"How much do I owe you, Mr. Thompson," inquired Freeman.

"Let's see—that'll be two dollars and eighty-nine cents. Didn't need any oil," replied Thompson.

"Keep the change," volunteered Freeman as he handed Thompson three fresh, crip one dollar bills.

"Thank you," the storekeeper hastened to say.

As the big car pulled away from the store, Freeman shouted, "Tell the League boys there will be a session tonight and to come early."

"You bet," responded Thompson.

Time did not hang heavy on the hands of Freeman and Bob Darr. The dry weather came in for some discussion. Fishing conditions, which according to Bob, were definitely not good, received its share too.

"My wife's sister's husband was killed shortly after the War started," explained Bob. "He was in the infantry and a sniper got him."

"That's too bad," consoled Freeman.

By that time the car had pulled up in front of the Darr home. The two men got out and walked up to the front porch.

"Marion, this is Mr. Freeman," spoke Bob to his sister-in-law.

"I'm very glad to make your acquaintance," warmly responded the polished Mr. Freeman.

Marion's husband was dead, Freeman was a bachelor, and after Freeman had time to collect his bearings after feasting his eyes on the beauty of this new lady acquaintance, he was not so certain that he wanted to remain a bachelor—and be a traveling salesman.

"If you," Marion said, "will pardon me, I'll help sister prepare supper?"

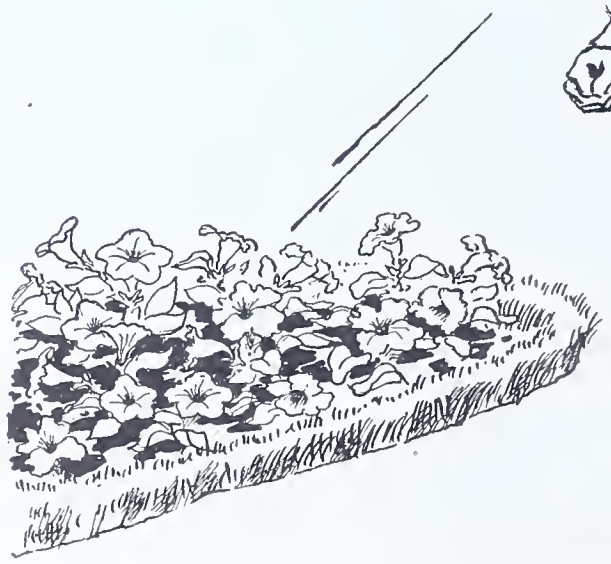
"We hate to do it, but I guess we will have to," volunteered Freeman, and he really meant it.

The conversation between Bob and Freeman continued again, mostly along the lines of business conditions as Freeman had found them since he was last in the village.

"Will you please come in, supper is ready," Marion inquired of the two men.

Freeman thanked her and they went inside to enjoy what turned out to be a very delicious homecooked supper. It was especially appealing to Freeman, who seldom had the good fortune to get a homecooked meal.

In another part of the village things were also humming.





"Spat squarely in the center of Priscilla Parson's petunia patch."

On the spacious lawn at the Gates home stood Frizzy Gates and Jimmy Ebson discussing what appeared to be a very weighty problem. The discussion was broken by the sudden appearance of a striking brunette clothed in dark blue shorts and a lighter blue sports jacket. She appeared to be about Jimmy's age—sixteen.

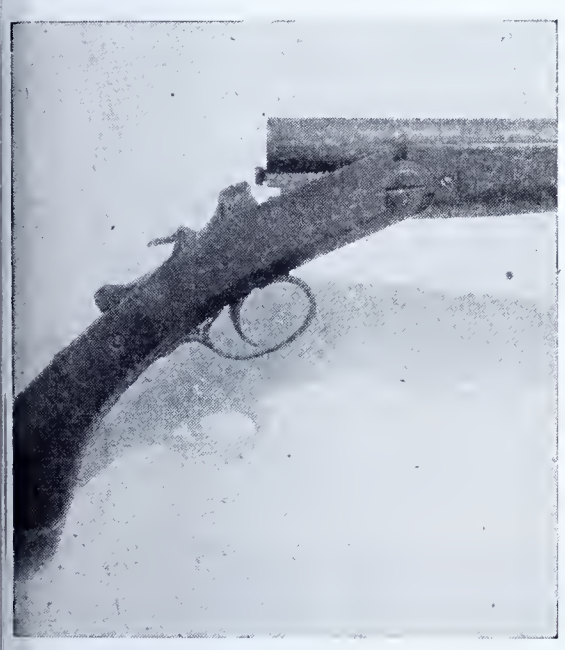
Even before they were introduced, Jimmy fell—and fell hard. This was the kind of a girl he had often dreamed about—but never even hoped to meet. There she was—right before his face.

Frizzy spoke up—"This is Miss Betty Kinkaid of New York," as she turned to introduce her to Jimmy.

"How'd ya do," responded Jimmy, who never had an extensive vocabulary—and besides he was awe stricken.

"Betty and her father are visiting with us for a few days—her daddy is quite a fly fisherman, and is up on Crooked Creek with my brother today," explained Frizzy.

"Shouldn't go fishin' this week. Should



Single barrel exposed hammer—unsafe.

have gone last week or wait until next week," Jimmy bluntly said, echoing a remark he had heard some of the older men use.

"Guess it's not very good fishing weather," Betty commented warmly.

"Jimmy, if you can get another boy friend for Betty, we would like to go swimming early this evening," said Frizzy.

Stalling for time, in the hope that he could get someone for Frizzy and not for Betty, whom he would have liked to escorted, Jimmy inquired, "Up at the big hole, you mean?"

"Yes," answered Frizzy, too quickly to let Jimmy even attempt to solve his own, more important problem—how to get rid of Frizzy.

"Well I'll see what I can do," Jimmy said—"And I'll be back about six o'clock."

The girls went into the house. Jimmy walked up the road—his mind struggling with two momentous problems—

Jimmy was so engrossed in the problems that he talked out loud to himself as he walked along the road—"Don't think I ought to get anybody for her. If I do I'll never get to see her myself. Why couldn't Frizzy just have introduced us and let it go at that. Then I could have found some way to have entertained Betty—alone. On second thought Betty will be gone in a few days but Frizzy lives here all the time. Well, guess I'll get Bud Thompson," mused Jimmy.

There was considerable wisdom in Jimmy's decision. Bud Thompson, the grandson of 'ole man Thompson, was the only boy friend he knew who had an automobile. Yes, sir, a Model T-Ford, and in pretty good shape too. True, it had no top on it, but who cares about a little rain—so long as you have transportation, and the right girl friend at your side. Equally important was the fact that Bud had a key for his grandfather's store, since he "opened up" once in a while. If Frizzy and Betty decided they wanted gum drops, Jimmy knew of no better way to get them with his scarcity of money which had hit a new low.

Bud consented, got the Ford and his bathing suit. Then over to Jimmy's home while he got his. Next to the Gates home for it was now almost six.

Jimmy purposely did not go into too detailed a description of Betty, with the hope that somehow—something might happen to give him the break he so earnestly hoped for.

Bud and Jimmy met the girls and the rickety old Ford set out on the dusty road towards the "Big Hole."

Grampy Gates sat sleeping in an old rocking chair on the front porch.

All of the regular and contributing members of the Stove League had assembled at the store about seven. The evening was warm and the boys had taken benches, egg crates and empty bushel baskets out in front of the store.

Mr. Thompson had passed out the word that Freeman was there earlier in the evening.

Bob Darr and Freeman were observed to be walking up the road, since Freeman had agreed to spend the night at Bob's. It didn't take much coaxing as Freeman seemed to be having much difficulty getting Marion out of his mind.

The Stove Leaguers must have been glad to see Freeman. They greeted him most cordially.

The usual round of kidding took place, when Freeman said, "Met a fellow up north last week who really had an idea. Said he was going to cross raccoons with kangaroos, so the women would have pockets in their 'coon skin coats." The boys enjoyed the joke.

"Well Freeman," queried President Joe Stutz, "Just what can be done to stop these hunting accidents?"

"About the best thing that I can think of," responded Freeman, "would be to give most of them a big hypodermic of ordinary horse sense. That's what they need."

"Seriously, there are a number of things that certainly would help—if the hunters would only observe them. First, if they remembered the slogan the Game Commission recommends 'ALL GUNS ARE LOADED,' and not take it for granted that they're not, there would be considerably less accidental shootings."

"Your right there," prompted Harve Betz.

"Always look and make sure the gun isn't loaded before you set it down, or hand it to somebody."

"You know fellows, we're gettin' old and won't be here too long to do this job of preventing accidents. It appeals to me that if we devoted our efforts to the younger generation, who are following in our footsteps, we will be doing a swell service to those kids. They need training in the handling of firearms and they need it now. Boy Scout groups, junior rifle clubs, boy groups of all classes and ages are eager to receive instruction. Not here in the backwoods where you fellows teach your kids safety methods, but in the urban areas and cities. And the girls should not be overlooked either. Every year there seems to be a heavy increase in women hunters. High school and college students make apt pupils, because they are mentally alert. They are interested too."

"Let's start a club right here in the village," prompted Corney Clark.

"Second the motion," hastened Hal Jobson.

"One of the things that we must teach 'em," said Freeman, "is this desire to overcome—GREED. Two hunters see a pheasant. Each tries to kill it before the other.



Old double barrel exposed hammer type—unsafe

The result somebody gets in the way—and shot. Frankly, I don't know any method of instruction that will overcome that menace. Examinations of hunters before they get a license won't solve the problem. You can't design a test that will measure the reaction of a hunter at the sight of wild game."

"No, you can't," agreed Vice President Ernie Mezzer.

Darkness had began to settle. Down the road a single figure was slowly approaching the store.

"Looks like old Grampy Gates," suggested Bob Darr.

It took "Grampy" a full five minutes to walk what would be an ordinary city block, and he seemed to be having some trouble making it at all. He finally made it however.

Bidding the Stove Leaguers, "Evenin' boys," he opened the screen door into the store, walked in and was followed by Lem Thompson.

"What can I git for yu, Grampy?" asked the storekeeper.

"Sum Brown's Mule," replied Grampy.

"Right," responded Thompson.

Now Lem Thompson and Grampy Gates had been close friends for more than half

(Continued on page 29)

Big and Historic Trees



White pines, Cook Forest.

Photos courtesy

Pennsylvania Department of Forests and Waters

ALTHOUGH the foremost of all Pennsylvania's historic trees is no longer standing, no discussion of the great trees of the State would be complete without mention of the Penn Treaty Elm. This grand old tree stood at Shackamaxon on the Delaware River in what is now the Kensington section of Philadelphia. Under its spreading branches William Penn met with the Indian chiefs in council in 1682 and concluded his famous treaty with the Indian nations.

The original Penn Treaty Elm was remarkable, not alone because of its historic interest, but also on account of its immense size. It is said to have a measurement of 24 feet in circumference at its base. One branch extending toward the Delaware River was 150 feet long. It was blown down by a storm in 1810. A number of the descendants of the Penn Treaty Elm are still living and their history is almost as fascinating as that of the original tree. The land upon which the treaty elm stood was once owned by the ancestors of the late General Paul A. Oliver of Oliver's Mills, Pennsylvania. A shoot from one of the roots, which showed signs of life after the old tree had blown down, was carefully moved to the Oliver estate near Bay Ridge, New York, where it grew for more than 50 years, when it was decided to remove it back to the soil of Pennsylvania. It was a difficult job to lift an immense tree 70 feet high from the ground, place it on two railroad freight cars, and then transport it to its destination at Oliver's Mills near Wilkes-Barre. The tree was moved in 1892.

A grand-child of the original Penn Treaty Elm was planted on the campus of the University of Pennsylvania by Governor Hastings on Arbor Day, 1896. This was a shoot from the elm tree at the Oliver estate. Other scions of the treaty elm are growing on the grounds of the Pennsylvania Hospital in Philadelphia, at the Friends' Meeting House on 12th Street, Philadelphia, on the campus of Haverford College, and on the campus of the Friends' School at Westtown. Still another descendant is growing on the campus of Mercersburg Academy.

Near the town of Bath in Northampton County is one of the largest horsechestnut trees in North America. This tree is famous because of its association with President Washington who sent it to General Brown, one of his aids in the Revolutionary War, who planted it on the lawn of his home.

Another famous tree of southeastern Pennsylvania stands near the Brandywine Baptist church at Chadd's Ford, Delaware County. It is called the Lafayette Sycamore because under its branches is said to have stood the stone house used by the famous French general as his headquarters at the time of the battle of the Brandywine in September, 1777.

Another well known historic tree of Pennsylvania is the old Donegal white Oak which stands before the Donegal Presbyterian church between Marietta and Mt. Joy in Lancaster County. It is also known as the "Witness Tree" because under its branches in September, 1777 the congregation of the little country church pledged their loyalty to the cause of liberty, when informed by an express rider that the British army, under Lord Howe, had left New York to invade Pennsylvania. This fine old oak is still standing and has been preserved by generations of tree lovers. Foresters have estimated its age at more than 300 years.

The Tiadaghton Elm, also known as the "Liberty Elm" which stands on the west branch of Pine Creek near Avis, Clinton County, is believed to mark the spot where on July 4, 1776 the early settlers of northern Pennsylvania met and signed the Pine Creek declaration of independence. Foresters have estimated this tree to be considerably more than 200 years old.



The Witness Tree, Donegal Presbyterian Church, near Mt. Joy, Lancaster County.

of Pennsylvania

The hemlock has been the State Tree of Pennsylvania for nearly two years. It was so declared by the General Assembly because it is the tree most typical of Penn's Woods. Although not to be compared in size with some of the big trees of the Pacific Coast, the hemlock is ordinarily considered one of the large trees of the eastern United States. Normally its height ranges from 60 to 80 feet with a diameter of from two to three feet. Occasionally grand old specimens are found 100 feet in height with diameters of four feet.

Some of the largest hemlocks in Pennsylvania may be found growing in the Cook Forest Park in the western part of the State and in the Allan Seeger State Forest Monument in Huntingdon County. Several trees native to Pennsylvania attain great ages and the hemlock is one of them. Dr. Joseph T. Rothrock, father of forestry in Pennsylvania, once counted the annual rings on a hemlock stump that measured 4 feet 10 inches in diameter. When cut the tree was 542 years old and must have been a vigorous, well grown specimen when Columbus first sighted the islands of the New World.

Twenty years ago if any boy in Pennsylvania were asked to name his favorite tree, without hesitating he would probably have named the chestnut. Its nuts are undoubtedly the most pleasant tasting of all the wild fruits of the forest. Once one of the most prolific and common trees of Pennsylvania's woods and countryside, the chestnut has suffered severely from a disease known as the blight which has killed practically all our chestnut stands. It is almost impossible to find in Pennsylvania today a single large chestnut tree. What is believed to have been the largest chestnut in Pennsylvania grew on a farm in Perry County. It had a diameter of 11 feet and its wide spreading branches could have sheltered a regiment. This fine old tree annually produced large crops of delicious nuts, but it too was attacked by the blight and has decayed.



The Liberty Elm.



Lafayette Sycamore.

Next to the hemlock the white pine is perhaps Pennsylvania's most noted conifer and is one of the most important timber trees of the United States. Large and magnificent white pines may be found growing in various parts of the State, but the original stands of virgin white pine timber have practically all fallen before the lumberman's axe. Ordinarily white pine ranges in height from 60 to 100 feet with diameters of one and one-half to three feet. Occasionally heights of 125 feet and diameters of three feet are attained by old individuals where grown on good soil. In the Cook Forest Park in western Pennsylvania there are magnificent white pine trees close to 200 feet high with diameters of four feet. A single one of these pines would produce as much as 5,000 board feet of lumber.

Because of its beautiful foliage, straight trunk, and graceful branches, the tulip tree, or yellow poplar, has rightfully been called one of the handsomest of Pennsylvania's hardwoods. In the South the Tulip sometimes reaches a height of 200 feet, though there is probably none in Pennsylvania of this great size. At the Friends' Meeting House in Philadelphia stands an unusually large specimen, and another is on the grounds of the Westtown School in Chester County. This latter tree is 165 feet in height and its volume has been estimated at 6,500 board feet.

I have listed only a few of our State's big and historic trees. There are hundreds more of them. Almost every community can boast of at least one. I urge you to get acquainted with our trees. Learn to know them. Study their habits. Saint Bernard once wrote, "Trees will teach what thou cans't not learn from a master." And I might add, they will teach what you cannot learn from books. Pennsylvania's trees are Pennsylvania's treasurers.



"After spending thirteen months at Tulelake, California, I was transferred from there in October and arrived here at Ogden Arsenal on October 12. Upon arrival here I assumed command of the 226th IQM Depot Company which was later disbanded. I am now in command of the 143th IQM Service Company which was activated at the time of the disbandment of the 226th Co.

"I suppose that you are wondering what business an M.P. Officer has in a Quartermaster Company. By way of explanation I will add that the personnel of this Company is made up of Italian prisoners of war who early in the year pledged their allegiance to the Allied Cause and after investigation and approval were placed in Italian Service Units. At the present time they are working on various details at the arsenal. They seem to be doing a pretty worthwhile job here as the arsenal is hard pressed to find adequate civilian personnel to take care of their labor requirements.

"The small game season in Pennsylvania should be in full swing at this time. I can recall many pleasant days afield on November 11th in past years. It is at this season of the year that I long most for the hills of Pennsylvania.

"While stationed at Tulelake I had several opportunities to go afield and enjoy some of the wonderful hunting that they have in that district. That, however, is not the case here at Ogden. Since my arrival here, the Utah deer and pheasant open seasons have come and gone and the elk season opens today, but it has been impossible for me to take advantage of them.

"This is quite a picturesque section of country where I am stationed. From my Headquarters I can look to the east and see part of the Wasotch Mountain Range which is nearly and at the present time covered with snow. By looking to the west I am able to see Salt Lake in the distance."—1st Lt. David Titus, C.M.P., 148th IQM Service Co., Ogden Arsenal, Ogden, Utah.

Received a note from Joseph Leiendecker who has been spending most of his army life in the Carolinas. He has observed some wildlife including a bear which was hung up in a little town not far from his camp at LeJeune, North Carolina. However, Joe says that he is pining away for old Pennsylvania hills and asked us to say "hello" to everybody.

SEAMAN TEMPLE REYNOLDS HONORED

Capt. W. R. Cooke, commander of the U. S. Naval Amphibious Base, Solomons, Md., in a communique recently honored Temple A. Reynolds, of Montrose, a state game protector prior to his entrance to the Navy, as follows:

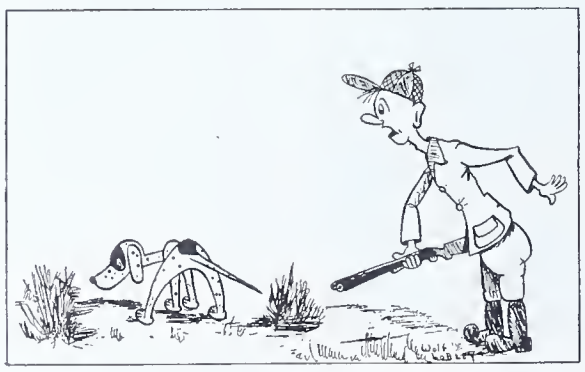
"It is with pleasure that the Commanding Officer of the U. S. Naval Amphibious Training Base, Solomons, Md., announces the selection of T. A. Reynolds, S 1/c (Cox), as the outstanding member of his graduating crew at this Training Base. Notification of this selection was made to the man's next of kin, his wife, Mrs. T. A. Reynolds, Montrose, Pa.

"To choose the outstanding member of the crew we considered such points as military performance and bearing, promptness at drills and classes ashore and afloat, appearance, general interest and attitude, and the school grades of each man in the crew. T. A. Reynolds is commended for his excellent work."

Seaman Reynolds recently arrived in New Orleans and it is probable will soon be en route to the Pacific Coast, to which area his crew will doubtless be transported.

Also had a note from Sergeant Bob Reed at Erie to the effect that he recently was on the wrong end of a cutting party at Hamont Hospital. They removed his appendix "almost not too quickly", he says. Bob must be interested in ornithology also, because he ended up his little note saying, "A certain long-legged carrier bird whose name begins with an S is hovering expectently over my little apartment." Good luck Bob.

BUY BONDS



"Well, make up your mind!"

"Yesterday I received the copies of the GAME NEWS you had sent me. I cannot begin to tell you how much I appreciated getting them. Recently I was transferred to another station, and then to temporary duty here in Tehran to attend an investigators school. Because of the moving around, mail from home has been slowed up. The GAME NEWS was sent to the address I had sent to you when I was here last July. So I was lucky enough to intercept them before they made the round of forwarding addresses I have left. Getting them was almost as good as a letter from home. I have read them from cover to cover.

"I am still working as an investigator on the Motor Transport Service, and like the work a lot. At the present I am attending more or less a refresher course with a lot of time given to study of the Persian language, which is sure a mixed up lingo as far as I am concerned.

"In the July issue of the GAME NEWS I noticed an article in which was mentioned the stocking of chukars back home. Several times, while hunting boar I have flushed coveys of a hundred or more birds, and how I would have liked to have had a shotgun instead of an M-1. I cannot figure why any bird or animal that can even exist in this country doesn't thrive in a country like Pennsylvania. The country in which I have seen chukars is the foot-hills of barren mountains. About all the vegetation is something on the order of an over-grown sand-burr. Foxes and hawks are abundant. Of course I do not know if the foxes here have the same habits as those we have at home. I have driven along a road in the evening and seen as many as twelve foxes in a distance of fifteen miles. Boar hunting certainly is wonderful sport. As yet I have not been lucky enough to collect a good set of tusks. I have been in on several kills of large boars, but in every case the tusks have been broken. Gazelle are also in great numbers. We hunt them at night with a light. Herds of two or three hundred are not unusual. The mess halls are glad to have all the game that can be brought in. It sure does make a welcome change of diet after the famous "C" rations.

"The first things I read in magazines I received was the "Notes From the Field" and "Those in Service." It sure is good to know what the fellows at home are doing, as well as it is to know where and what those in the service are. Give my best to all—and good luck through the season."—Don Miller, Tehran, Iran.

WELL— WHAT'S WRONG ?



1.



2.



3.



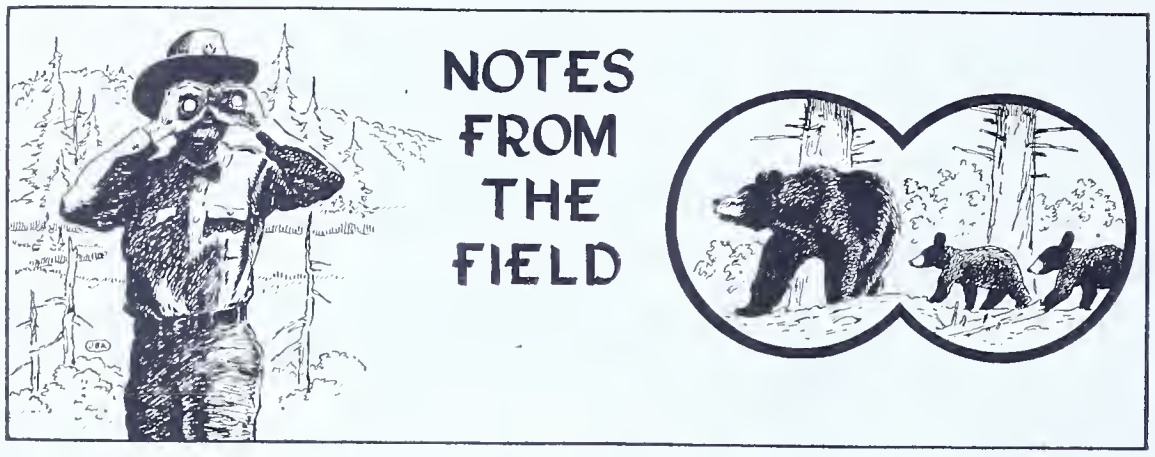
4.



5.

JACOB BATES ABBOTT

If you are not sure better look on page 21



"The squirrels have nearly all migrated out of the county.

"I saw a flock of 15 or more of the real old wild turkey in Refuge 76 on Sunday the 29th.

"The timber in Dothan Valley is very old for the size; I noticed one black oak with very close grain or rings. The tree was 16 inches in diameter and the rings were too close to count without a glass, but I think it was at least 175 years old."—Game Protector D. H. Franklin, Upper Strasburg.



"There are more bear signs in this section this year than there have been for the past four years. Bears have done quite a lot of damage to the apple trees."—Game Protector George E. Sprankle, Emporium.

"I trapped 37 foxes this month with the assistance of Fish Warden Sheldon. Opossums are very numerous and we were bothered by them ruining our fox sets. Very little game was caught in the dirt hole set, two rabbits being the total. These were caught in new sets and it appears that the rabbit gets caught while playing in the freshly dug dirt. I have never caught a rabbit in this type set after the dirt loses its freshness.

"We had a very large number of duck hunters on the opening day of the season. A couple of marshes produced good shooting but on the whole the total kill for the day was light. The exceptionally dry summer and fall that we have had must have had some effect on the duck shooting as it is not up to par this year. Many of the swales and marshes that ordinarily have water in them at this time of year are bone dry."—Game Protector Raymond M. Sickles, Linesville.

Game Protector Ambrose Gerhart of Souderton reported that a buck deer weighing 125 pounds dashed through the doors of the Lansdale Theatre, Main Street, Lansdale, and did about $350.00 damage to equipment before the police could kill it. The deer wrecked seats, the piano and other equipment in the theatre.

The Commission is anxious to determine as accurately as possible the number of sportsmen who hunt both large and small game in Pennsylvania with the bow and arrow. It has a record of those who hunt on the two special archery preserves because they have to purchase a special license to do so; however, the number that hunt on regularly open territory throughout the Commonwealth is not known. If you are a modern Robinhood and have made any kills in this or past years let us know about it.

"I have taken many oppossums in my fox traps during the last part of the month. If this animal destroys eggs and young of nesting birds and rabbits, this factor alone might contribute a great deal to the scarcity of small game.

"Several hunters, returning from hunting trips in Canada this month, reported that they saw great flocks of ducks on the lakes in Canada and that the weather has been exceptionally mild up there this month. This would account for the fact that we have had very few flight ducks so far this season.

"Raccoon hunters report that this animal is very abundant this season.

"A wooden barrel makes a very good place to store traps after they have been boiled down prepared to catch foxes. A few dry leaves and hemlock or pine boughs can be placed in the barrel with the traps and a cover put on the barrel. This will keep all foreign odors from collecting on the clean traps and they will be ready to set at any time."—Game Protector Elmer D. Simpson, Cambridge Springs.



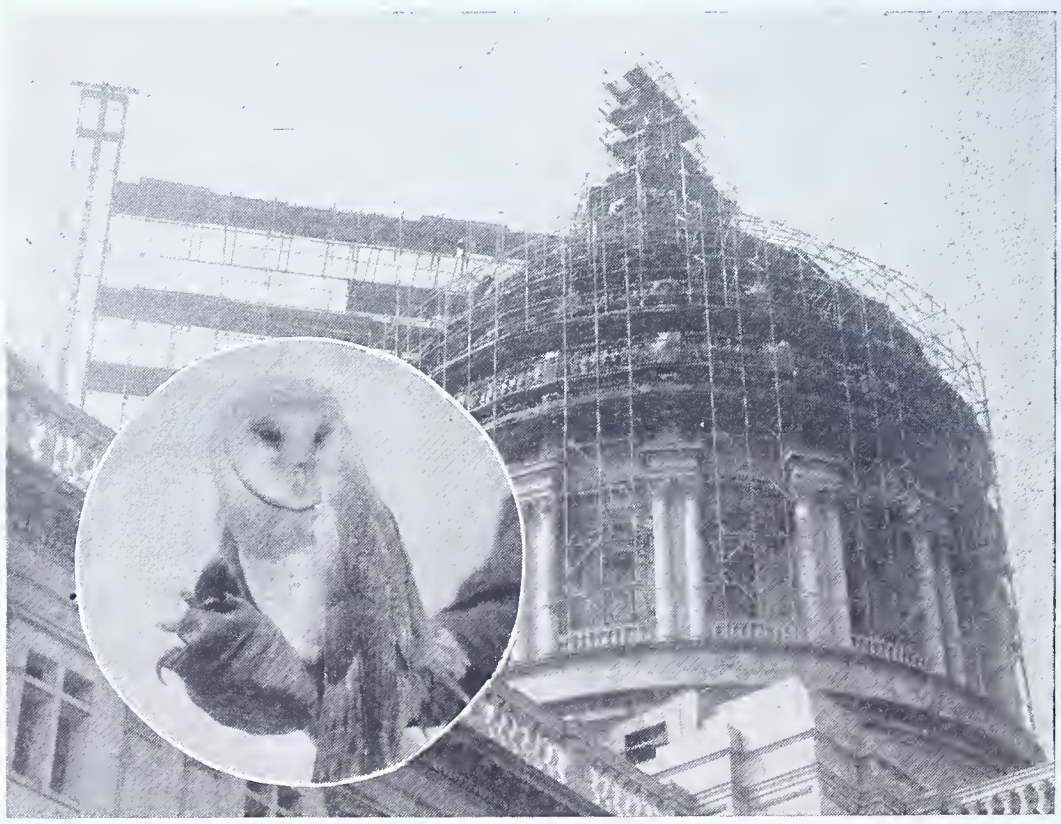


Photo by Lindsay Griffin.

Workmen cleaning and repairing the State Capitol Dome at Harrisburg were surprised one morning to find a Barn Owl near the top. A little "whoozie" the creature was turned over to the Game Commission and later ended up in the local Zoo.





Photos by Leo A. Luttringer, Jr.

Game Protector Mark Motter, left, Dauphin County, with 265 lb. buck found mortally injured in a stream near Halifax by Charles Hoover, R. D. 2 that town. Mr. Hoover put the animal out of its misery with Protector Motter's permission, then took his horses and drag sled and hauled the creature to his farm. It was carefully weighed on the hoof and later with the entrails removed. It tipped the scales at 240 lbs. after it had been drawn. Later it was turned over to the Dauphin County Home where the chef, right, proudly displays its rack of eleven points.



"The fox trapping started off in good order but I soon ran into trouble. I had caught and lost two before I found what was wrong. The swivel on the chain of the new Victor traps was bent too long. It worked in a long slot. This long bend would catch in the slot and fail to turn with the fox. The fox would then twist his foot off and escape. This should have been a short bend to allow free action of the swivel. I believe it would have been better to place the swivel in a round hole instead of this slot. I had to lift all my traps and cut off the end of this swivel.

"The fox trapper working on Game Land No. 93 has reported seeing many turkeys on this land. Most of them were seen near the buckwheat field in the Refuge. He saw seven old gobblers there at one time, one time a hen and nine young, and at other times mixed flocks of various numbers.

"Up to this time the duck or goose hunting has been very poor in this section. We usually have some ducks nest on the beaver dams and some flight birds stop on these dams and small ponds or reservoirs. We did not have many nesting birds this year and the flight birds have not come in, due to the warm weather we have had this fall.

"We have finished harvesting the corn crop at Refuge No. 34. It was a very fine crop and a good yield. It will furnish much winter feed here in the mountains for our squirrels and turkeys. It was a very fine thing to have, as ear corn is hard to purchase up here in this part of the state."—Game Protector Clyde W. Decker, Clearfield.

The Pigeon Creek Sportsmen's Association will hold its second annual fox hunt on Sunday January 21, 1945. The hunters will gather at the Moose Hall, Cokeburg, at 9 A.M. and will return there for lunch after the hunt ends at 3 P.M. Dogs will be on hand and the hunters will be formed into groups. Several of the fox chasers in that vicinity claim there are too many foxes in the territory and have agreed to be present with their dogs to help thin them out.

Three prizes will be given for the most weight of foxes killed.

Persons wishing to take part in this hunt please notify Secretary G. R. Young, Cokeburg, not later than January 15, 1945, so that we can prepare the proper amount of lunch and know how many hunters to place in each group.

WHO KILLED THE BIGGEST BUCK?

Who killed the biggest buck during the past season; any season for that matter?

Don't be ashamed of your trophy. Tell us about it. Let's have weight (actual, not on the hoof), points, spread, thickness at beam, where killed and when—also photos and other details if possible.

Same with bear. If you killed a whopper holler real loud. Let's have weight, overall length from nose to tail, time and place.

And if you bagged *any* kind of game with a bow and arrow for goodness sake don't let a previous bragging moment go by.

"The Venango grouse trials started on October 27. The dogs had plenty of bird work this year; every brace that was put down found birds. There seem to be plenty of birds outside of the preserve, but they are very wild. The woods are unusually dry. If hunters aren't able to get any birds this year, they will have to blame it on the dry woods."—Game Protector Edward Shaw, Leeper.

★ ★ ☆ CURRENT TOPICS ★ ★ ☆

In Memorium



Jack Miner, the Canadian Naturalist, died at his home and bird sanctuary, Kingsville, Ontario, on Friday, November 3. The following day the above etching by KNIGHT appeared in The Windsor Daily Star. Jack Miner's body is temporarily entombed in a mausoleum, but will later be taken to his home and bird sanctuary to be buried among the flowers and birds which surrounded his life. Jack Miner was in his eightieth year and received practically all the honors in his field of activity being the only Canadian to receive the Outdoor Life Gold Medal. As an Empire recognition His Majesty King George VI conferred upon him the O.B.E. Eddie Guest, the Detroit poet, always referred to him as "The best loved Christian in America." The last edition of The Books of Knowledge has named him as one of the fifteen great men of the world.

JACK MINER

By JACK HERITY

Belleville, Ontario

He must pack a heap of pleasure
Underneath his shaggy dome;
Now it's getting on to autumn
And his birds are coming home.
It must stir up all his senses
In a kind of inside grin
When he gazes down the Southway and
Sees his squadrons winging in.

Must be like a mighty merchant,
When his ships come one by one,
To the harbor where there's quiet
And retreat from pirate's gun.
Pirates! That's the right name for us.
Oh, I'm guilty, same as you,
For I've often sent them tumbling,
Broken, tattered, from the blue.

I have lain for hours listening
For that throbbing cry,
And to see an old commander
Lead his flock across the sky;
But—well there above the fireplace
You can see my guns today,
And they're mighty ornamental
Since I went down Kingsville way.

Angels used to be right common,
If I believe what I've heard say;
But a scientist will tell you
We don't have such things today.
Still I guess if we could see things
In a sort of spirit light,
We would find Jack Miner's raiment
Is a robe of shining white.

State Game Warden E. Lee LeCompte, of Maryland, who on October 18 reached the retirement age of 70, is to be retained under an emergency statute, passed by the 1943 General Assembly, granting merit system employes eligible for retirement the right to continue service.

Mr. LeCompte has served for 28 years in his present office and enjoys the respect and confidence of all conservation-minded individuals and groups throughout Maryland.



Photo by Allentown Morning Call.

Principals at an October 25 meeting of the Lehigh County Fish and Game Protective Association look over two of the deerheads submitted in the group's contest for the biggest deerhead in 1943: Clair S. Mengle, president of the association; Barton M. Snyder, a runner-up in the contest; Clifford S. Bartholomew, master of ceremonies at the Hunters' Night program; Claude Wilson, another runner-up; and Elmer Kibler, chairman of the deerhead committee. Prize winning deerhead was submitted by Lloyd Shollenberger of 30 South Madison Street, who was unable to attend the ceremony at the Allentown High School auditorium. Claude Wilson's deerhead, fourth from the left, has 10 points, a 16¾ inch spread; a 20¼ inch beam; and 6 inches at the base of the skull. Wilson is a resident of 447 Linden Street, Allentown.



MRS. I. A. McHUGH

Mrs. I. A. McHugh completed 26 years of loyal and faithful service on October 15, but she's been around so long that we didn't realize it at the time. We make amends through this little tribute which has been too long appearing.

Mrs. McHugh has been employed in various departments of the Commission in her long career and for the past twelve years has been Chief Mailing Clerk. Her husband, a former Game Protector, was shot and killed on November 7, 1915 by a violator he was trying to apprehend.

Mrs. McHugh has three grown children, a daughter and two sons.

LEHIGH SPORTSMEN PURCHASE LAND MEMORIAL TO SERVICE MEMBERS

The 800 members of the Lehigh County Fish and Game Protective Association who were present at its Hunter Night meeting in the Allentown High School auditorium, October 25, unanimously approved the executive committee's proposal to purchase a tract of game land as a living memorial to the members who have gone to war.

The executive's committee's proposal included the allocation of $1,000 worth from next year's budget to purchase at not more than $25 per acre land immediately adjacent to Game Lands No. 205, the west portion of the former Trexler Sheep ranch. The land is to be donated to the Pennsylvania State Game Commission to be operated in the same manner as all other public game lands in the Commonwealth. The executive committee was also empowered to accept voluntary contributions from members who desire to have the organization buy a larger tract than the $1,000 appropriation.

When the 1944 membership campaign of the association closed on September 1, some 62 boys accounted for 1,566 of the total roster of 2,309 on that date. This represents the highest membership which the Lehigh County Fish and Game Protective Association has ever enjoyed and exceeded the current goal of 2,300 (100 for each of its 23 years) by nine.

LYCOMING GROUP PLANS POST-WAR PROGRAM

Not long ago W. Boyd Tobias, Chairman Promotional Committee of the CONSOLIDATED SPORTSMEN OF LYCOMING COUNTY suggested the following programs for the benefit of servicemen following mustering out action and their return to civil life:

1. That we sponsor a dinner for former members of the Consolidated Sportsmen, individual members acting as hosts to former soldiers, sailors and marines, by paying for their own meal as well as that of another. That the program be largely a "welcome home", with former service men recounting hunting and fishing experiences they have had in strange lands.

2. That we urge the Pennsylvania Game and Fish Commissions to prepare immediately for an extensive game and fish stocking program in order that excellent sport will be available for ex-service men when they return to civilian pursuits.

3. That we recommend to the proper national and state agencies that preference be given discharged military service men in employment of help in programs calling for the elimination of contaminating agencies responsible for the pollution of streams adequate for fish life. Also, that similar preference be given in conservation programs having as their object the multiplication of our wild life.

4. That we urge that an adequate supply of ammunition and fishing tackle, as well as sports clothing, be made available for ex-service men immediately after the war ends. Steps to bring this about should be taken now.

5. That we sponsor (perhaps in cooperation with Harder's Sporting Goods Store) a shooting school at which the boys may learn to handle sports guns, both rifles and shotguns. If we are to have compulsory military training after the conflict, perhaps boys of school age also would attend such a firearm school.

6. That we expand the practice of making annual memorial awards, such as has been done in the case of the late Lt. Kenneth Myers, and name for other members of the Consolidated Sportsmen who make the supreme sacrifice, these additional prizes. Such awards to be made, as in the past, at our annual banquets.

EXPLANATION

The Commission has received numerous written complaints alleging violations of the Game Law which were widely publicized in daily newspapers, the first of which depicted an alleged violation occurring during the small game season, the second being a news item, which, if true, would have been in violation of the big game regulations.

One photograph showed four hunters in possession of a large quantity of rabbits, the other item dealt with a report of a party of hunters who apparently had killed in excess of the season limit.

Subsequent investigation proved that the small game hunters were displaying game taken on two separate trips, while the deer had been killed within an enclosure under authority of a licensed propagating permit. Under such conditions, deer may be killed at any season of the year, without regard to sex or limitation of numbers.



MR. HUGH H. GRONINGER

Hugh H. Groninger of the Bounty Section of the Division of Law Enforcement, is another old and faithful employee who just passed the 25 year service mark in October, 1944. Hugh started as a Game Protector in Juniata County in 1919, was later made Assistant Chief, then Chief, of what was then the Bureau of Predatory Animals. He also served as a Game Protector in Perry and Westmoreland Counties. Hugh is a World War I veteran and a graduate of Penn State, where he received a B.S. in Agriculture.

LOWER MERION CLUB HOLDS CAPON SHOOT

The Lower Merion Rod and Gun Club side-stepped the scarcity of Thanksgiving turkeys and ammunition by holding a capon shoot at the Nash Farm, Sunday, November 19. A large crowd turned out, and everyone tried his skill. The afternoon's fun was climaxed by two short, snappy trap shooting contests of keen competition.

Junior members of the club have continued their several activities. From April to September they followed a schedule of weekly fishing trips and plan to resume their plug casting started last May. The boys are also looking forward to helping the Pennsylvania Game Commission with its huge rabbit trapping program during the coming Winter, when they will aid in removing rabbits from gardens, nurseries and other "no hunting" areas. The rabbits trapped on these areas will be liberated by the Pennsylvania Game Commission in territory where they will not cause crop damage, but will provide increased hunting for Pennsylvania sportsmen.

NEW CLUB BULLETINS

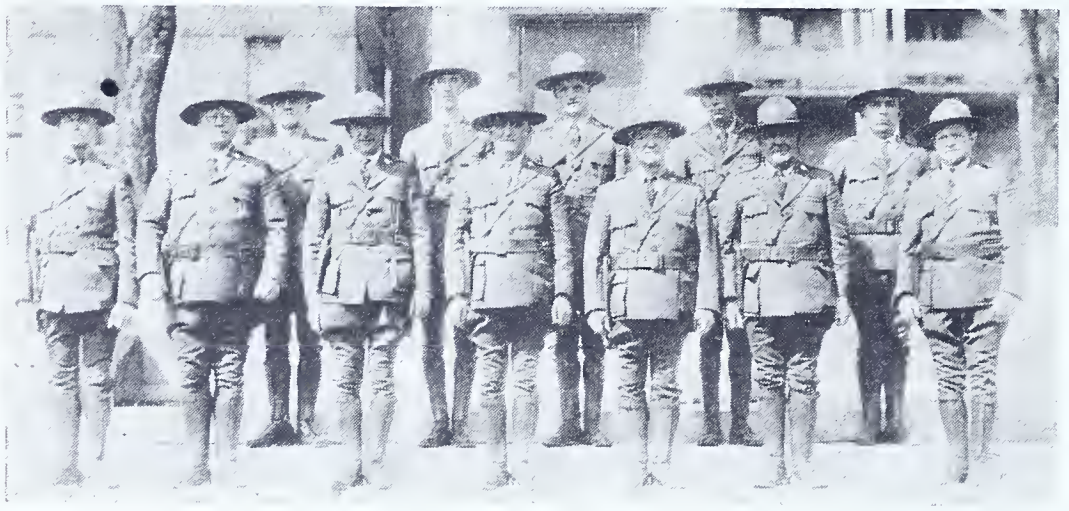
"Bucks County Sportsmen" is the name of a monthly service bulletin recently issued by the Bucks County Federation of Sportsmen's Clubs. It carries a lot of timely local news of interest to the members. Many other associations issue similar bulletins; how many we don't know. Hands up! Let's see yours!



The Daniel Boone Rod and Gun Club held its first meeting January 16, 1936 in Berks County. It now has a paid membership of nearly 600 members.

The Club restocks fish and game in the Townships of Amity, Exeter and Lower Alsace, comprising 36,000 acres.

The meetings are held the second Monday of each month at the Stonycreek A.A. at 8:30 P.M.. Any and all sportsmen are welcome to attend. Above are the association's current officers: Seated, left to right, Willis Goddard, President; George Whitman, Acting Secretary; Martin Seidel, Treasurer. Standing, left to right: Earl Drease, Vice-President; Walter Ganster, Fish and Game Supervisor; and Frank Dickinson, Trustee.



Here's another memory tickler for some of the Commission's oldsters. Know any of the boys. Refuge Keepers of Division "E," April, 1930.

DO YOU KNOW WHAT A SHOT GUN SHELL CONTAINS?

Many of us who hunt with a shot gun never stop to consider just what goes into the makeup of a shot gun shell. Is it just a simple little piece of mechanism made of powder and shot, brass and paper? According to a Remington Arms Co., Inc., authority, there is much more in the makeup of a "hull" than the ingredients mentioned above.

"In fact," said he, "when you stop to analyze the ingredients which enter a shell, you might be amazed at the number of CHEMICALS which are necessary to produce one."

Continuing, he said, "It would be confusing to anyone but a chemist to enumerate all the chemicals used in the manufacture of a shot gun shell. But here is a partial list: chromic acid, lead styphnate, mercury fulminate, barium nitrate, calcium silicide, bleached shellac, Ethyl alcohol, sodium hydroxide, acetone, ether, graphite, nitro glycerine, cellulose, tapioca starch, phenolphthalien, di-ortho-xenyl-monophenyl-phosphate.

"The total number amounts to over one hundred chemicals used in the manufacture of one small item which provides hunters with a moment which amounts to a great deal of pleasure. This is just a small example of how chemistry plays a part in one of America's greatest sports—hunting," he said.

BOOK REVIEWS

Woodcock—By John Aldan Knight (A. A. Knopf, New York, $4.00) is the last word on the titled bird. Well and robustly written, it brings a charm to the armchair writer and an accuracy to him who ventures into the alder swamp in search of *Philohela Minor.*

The book is finely illustrated by Dr. Edgar Burke, who made such meticulously perfect paintings of flies, reproduced in "Trout" by Ray Bergman. The photographs could be better, but taken as a whole this is a very swell book for woodcock writers or those interested in the whistling-winged bird as a nature highlight not to be forgotten.

Wilderness Champian (Lippincott) is a book by that well-known naturalist, Joseph W. Lippincott.

It is the story of a hound dog, from puppyhood on, and is written with the charm of the master writer who wrote, among other books, "Animal Neighbors of the Countryside." Here is a story of the adventures of a fox hound that will please many readers who like adventure. Well illustrated by Paul Branson.

Son Of The Walrus King—By Harold McCrackan (Lippincott—$2.00) is a fine story for a teen-age naturalist. All about a walrus and his adventures. Splendidly illustrated by Lynn Bobue Hunt.

Dad's Buck Fever Cure

The time I saw my first big buck
I sighted for the kill,
But that old gun would not behave,
I could not hold it still.
I let it down, then raised again,
I thought I would not fail,
But still that gun was wobbling 'round
Just like the old cat's tail.
I said, "Now what's the matter here?
I'm trembling like a leaf,
I am not cold, I am not scared,
But I need quick relief."
Just then that buck moved out of sight
And left me hot and mad
And I turned 'round and went right home
And told it all to dad.
Dad said, "It must have been buck fever
That bothered you, my lad,
I see from what you tell me,
You had it mighty bad.
To cure the worst buck fever, lad,
Here is a little tip,
Just put your thumb between your teeth
And give a little nip."
When once again I roamed the woods
And spotted that big buck
I thought I'd try out dad's old cure
To bring a change of luck.
With point of thumb between my teeth
I did not sneeze nor cough,
But when my chops closed on that thumb.
I nearly bit it off.
I was so mad I held the gun
Like it was in a vise,
The shot I made on that big buck
Was really something nice.
Dad's old buck fever cure worked fine,
It fixed me up quite some,
I got my buck although I had
A nearly ruined thumb.

F. JUDSON SEWALL.

Living Monuments For All Our Boys

In memory of me, you wouldn't erect
A dreary stone that would reflect
No thoughts of joy or living things,
Or hope, for which the whole world sings.

I ask that you go plant a tree
To cast a shadow cool, for me.
A tree to bless the weary earth,
Or any monument of vital worth!

In haunting memory, on marble cold,
I want no story of my valor told.
Forlorn and desolate, they stand for years,
Despair they bring, and lonely tears.

Instead, I beg you plan a place—
A playground—where children race,
A little lake—a bathing beach,
A happy place—in easy reach.

For all the boys—on sea or land,
For all the flyers—who victory planned.
From the spirit world—we unite our pleas—
For playgrounds—pools—and glorious trees!

No futile piles of stone to mar
The landscape view—both near and far!
Dead monuments are but idle toys—
Give living things for our noble boys!

—Millicent Easter
Columbus, Ohio.
(Ohio Conservation, 7-44.)



OUST POLITICS IN KENTUCKY

Kentucky is the latest state to launch a "new deal" in conservation, eliminating politics.

Under a new law a nine-man game and fish commission, five Republicans and four Democrats, has been appointed by the governor from a list of 45 candidates nominated by sportsmen's organizations throughout the state.

Earl Wallace, former fish and wildlife supervisor in the western section of Kentucky, has been named director. Chosen on merit without regard to his political faith, Wallace had 12 years' experience in Wisconsin before taking the Kentucky job.

Answers to WHAT'S WRONG

1. Sparrowhawks nest in holes, usually abandoned woodpecker holes or natural cavities in trees.
2. Herons crook their necks back in flight. Cranes and ibises fly with necks extended.
3. Woodpeckers cannot go down a tree head foremost. This feat is accomplished by only the nuthatches.
4. The feet of a turkey buzzard are too weak to pick up any sizeable prey and carry it off. Their feet are adapted to walking, perching, and holding prey on the ground while they tear it with their powerful bills.
5. Alcohol and gun-powder do not mix any better than alcohol and gasoline.

DUCKS FLY NORTH BEFORE SOUTHWARD MIGRATION

Many young ducks fly north in the fall before starting their southward migration, according to Tom Main, General Manager of Ducks Unlimited, Canada, as a result of wildfowl banding and trapping operations conducted in North America's great duck breeding areas of western Canada, and reports of young ducks encountered in the fall far north of the breeding grounds.

The appointement of Dr. Gustav A. Swanson as a biologist in the Division of Wildlife Research was announced recently by the U. S. Fish and Wildlife Service.

The work conducted by the wildlife research units is a cooperative undertaking between the Service, ten land-grant colleges, the State game or conservation departments, and the American Wildlife Institute. These units have been established in the principal natural wildlife regions of the United States to conduct investigations that furnish a scientific foundation upon which to base practical wildlife restoration and management practices. They are located at land-grant colleges in Missouri, Oregon, Utah, Texas, Iowa, Ohio, Pennsylvania, Maine, Virginia and Alabama, where men returning from military service will be trained in handling technical phases of work in the wildlife field.

Colorado recently released 650 banded pheasants in a certain area in order to check the survival ratio of game farm reared birds as compared with birds reared in the wild.

LIVING MEMORIALS GAINING IN POPULARITY

Since our recent appeal for the substitution of greenery in place of statuary to honor our heroes, word has come of many instances of such enlightened action in Pennsylvania. Residents of Lewisburg are busily selling "shares" in a well-designed Memorial Field which will serve their community as well as honor its service men and women. 'Community Forests' are being planned in several sections of the State. The Lehigh County Fish and Game Protective Association, for example, is promoting one near Allentown. As a third-class city, both Allentown and the County Commissioners have the legal power to acquire, develop and maintain such an area. Just a little preliminary agitation by some respected citizen or group is all it takes to make such 'dreams' come true. A fine illustrated bulletin put out by the Forest Service of the U. S. Dept. of Agriculture offers plenty of facts and figures of interest to a 'hardboiled business man'. New England states have long since realized the many benefits accruing from citizen participation in the systematic planting of trees. In both Massachusetts and Connecticut the various Garden Clubs have collaborated with highway and park commissioners in planting suitably marked stretches of highway. Let's have more of this in Pennsylvania! Sportsmen and Garden Clubs should take the lead.

"During the buck and doe season of '40, five of us drove to Cherry Grove Township early in the morning of the opening day, with the understanding no one was to shoot a doe on the first day. We hunted all morning without seeing a buck. I saw five or six does, one of them sleeping, and I yelled to see her take off.

"We went out to the car at noon to eat our dinner, then decided to separate and 'still' hunt in the afternoon. One of the boys and I followed a ridge along Fools Creek to hunt. I told him to stay just over the ridge from me and I would try to keep track of him. However, I forgot about another ridge branching off towards the road about a mile up farther and he got separated from me.

"I hunted up the ridge about a mile and a half and was standing behind a big rock looking the country over when I saw a large deer lying on top of another rock; but I could see no head. Nevertheless from its size and dark color I was sure it was an old buck. Putting my rifle to my shoulder I drew a bead on the animal, but did not shoot, for several reasons, i.e., the distance was about 250 yards for one thing, and for another it *could* be a *spike* or a *doe* or even a dead deer someone had put there while he rested.

"So, I decided to get closer. The wind was in my favor and I held my gun in readiness as I catfooted to within about 150 yards. All this time I couldn't see any movement of the deer, which lay broadside to me, with its head still out of sight. I was wondering if I ought to shoot and look afterwards, but knowing better, decided against it. Instead I took a rest on a tree, drew a bead on the creature and whistled to see if it would raise its head. But no amount of whistling made it even so much as twitch.

"My curiosity was really aroused by this time so I approached to within about 75 yards of the deer, whistled again, then yelled, but still no movement. There was nothing left to believe except the animals was dead so I laid my gun down and started to light a cigarette when HE took off, and a finer set of horns I never saw before. I never got a shot at him, for about two jumps hid him from view behind a bunch of big rocks.

"If some hunter had come along just then he could have bought a gun cheaply as well as a pair of field glasses I left in the car at noon. He was at least a 10-point, whereas the largest rack I have been able to get was a small 6-point which I bagged on another occasion about a mile from where I was hunting when this episode took place.

"When I came back to earth I went up to the rock and saw that he had had his head hanging down over the edge. There was a good sized pool of blood on the ground where his ears and horns had lain in the snow. I believe his hearing was injured and he couldn't hear me, and the sudden shift of the wind or my putting the gun down jarred him out of his lethargy. I didn't see another buck all season."—L. E. Meehan, Corry, Pa.

Except as throwing material, rotten eggs served no good purpose until a smart trapper tried them as fox bait. In three months he lured 124 foxes to his traps and caught them all.

POST FEATURES COMMISSION

How would you like to hunt for giant quail or a super breed of deer?

In an article titled "More Fun For The Hunter" in the November 11 *Saturday Evening Post,* Philip S. Rose declares that the future may hold such thrills in store for our sportsmen.

The Pennsylvania Game Commission has pioneered in scientific breeding of game. "The encouraging thing," says Mr. Rose, "is that this ambitious program of game farming and land ownership is being carried on without cost to the taxpayers of the state. Hunters' licenses have financed all game work in Pennsylvania. Fisherman's licenses have paid all the bills of the Fish Commission." The brilliant full color photographs which illustrate this *Post* article were taken at Pennsylvania's game farms and fish hatcheries.

Placed end to end more than fifteen billion rounds of small arms ammunition produced by Remington Arms Company since 1940 would form an unbroken line to the moon, pass through its greatest diameter, and continue for more than 258,983 miles beyond; or encircle the world at the equator more than twenty times.

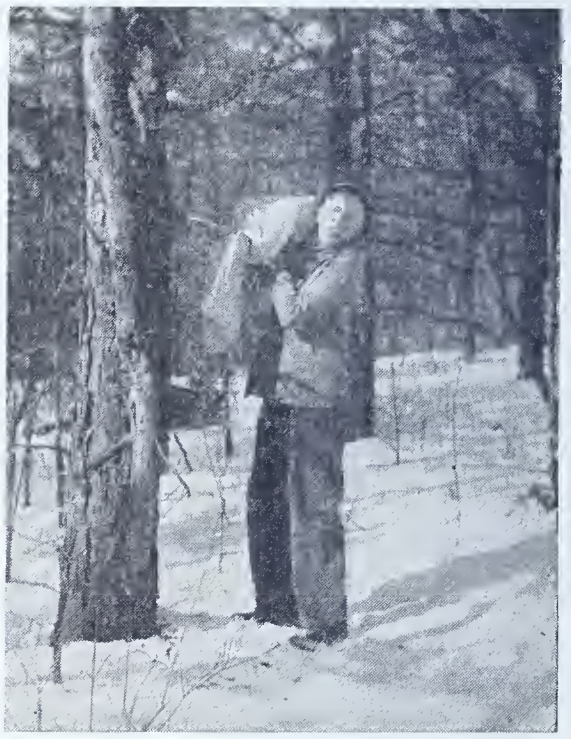


Robert E. Boyd of Villanova, Pa., (now in Navy) with 8-pt. buck killed in Carbon County, 1942.



Photo courtesy Charles L. Preston.

When Kenneth Middaugh of R. D. 1, Lawrenceville, bagged the above specimen in Tioga County in 1943 he really hit the jack pot from the "V for Victory" angle.



A Junior member of the Pleasant Hill Gunning Club doing his bit to feed wildlife during heavy snows last winter.

While coming over Tussey Mountain from Pine Grove Mills toward McAlevys Fort, Vernon J. Dietz of Huntingdon encountered a wild turkey hen leading her flock of 10 young across the highway. The way was blocked for some time by obliging motorists who stopped to watch the proceedings. The hen stood in the middle of the road and clucked her offspring across one at a time. As each small bird passed the mother she gave it a nudge toward safety with her wing. After all were safely over she followed and the motorists proceeded on their way.

Pennsylvania Game Commission

Statutory Fixed Charges Paid on State Game Lands and Game Farms in Lieu of Taxes—Year 1944

For the year 1944, the Commission paid a total of $37,573.02 to Counties and Townships as statutory fixed charges, in lieu of taxes on State Game Lands and Game Propagation Farms. Since the Commission started its land purchase program in 1920, a grand total of $422,512.23 has been paid to such agencies and the widely distributed lands it has acquired.

The Constitution of Pennsylvania exempts Commonwealth-owned lands from taxation, and local taxing authorities are required to remove them from their lists of taxable properties. If no provision was made to compensate local government agencies for loss in taxes when lands are acquired by a State agency their revenues would be reduced, at least in some instances, to such an extent as to seriously affect the management of schools and roads.

The Legislature many years ago provided the necessary legislation to take care of the situation by authorizing the payment of a fixed amount per year for each acre of Commonwealth-owned land acquired in the respective counties and townships.

County Treasurers are paid one cent (1¢) per acre for each acre of State Game Lands and Game Farms acquired in the county concerned. The Treasurers of 63 counties were paid a total of $7,507.60 for the year 1944. Since 1920, they have received $84,-698.98 to help pay the cost of managing county affairs.

Two cents (2¢) per acre is paid to the various Treasurers of Township School Directors to help defray the cost of maintaining schools. For the year 1944, the treasurers of 360 school districts were paid a total of $15,-032.71, and since 1920 they have received the tidy sum of $169,503.53.

For road purposes, two cents (2¢) per acre is likewise paid. The Treasurers of 360 Township Road Supervisors were paid $15,-032.71 for the year 1944. The total amount they received since 1920 was $168,309.72.

The amounts paid to each of the 63 counties and the several townships in those counties for the year 1944 are indicated in the following tabulation:

COUNTY	NUMBER OF TOWNSHIPS	ACRES	AMOUNT PAID TO TREASURER OF COUNTY	AMOUNT PAID TO TREASURER OF TOWNSHIP SCHOOL DIRECTORS	AMOUNT PAID TO TREASURER OF TOWNSHIP ROAD SUPERVISORS	TOTAL PAID
Allegheny	3	1,312	$ 13.12	$ 26.24	$ 26.24	$ 65.60
Armstrong	3	2,417	24.17	48.34	48.34	120.85
Beaver	5	1,422	14.22	28.43	28.43	71.08
Bedford	15	36.714	367.14	734.26	734.26	1,835.66
Berks	12	9.057	90.57	181.14	181.14	452.85
Blair	8	18.238	182.38	364.74	364.74	911.86
Bradford	11	36.563	365.63	731.24	731.24	1,828.11
Bucks	6	3.546	35.46	70.93	70.93	177.32
Butler	4	2,633	26.33	52.65	52.65	131.63
Cambria	9	18.375	183.75	367.53	367.53	918.81
Cameron	1	12.598	125.98	251.96	251.96	629.90
Carbon	2	9.059	90.59	181.16	181.16	452.91
Centre	11	34,108	341.08	682.14	682.14	1,705.36
Chester	1	922	9.22	18.43	18.43	46.08
Clarion	8	12.141	121.41	242.85	242.85	607.11
Clearfield	12	24.530	245.30	490.61	490.61	1,226.52
Clinton	2	10.571	105.71	211.43	211.43	528.57
Columbia	8	12.591	125.91	251.85	251.85	629.61
Crawford	10	10.102	101.02	202.00	202.00	505.02
Cumberland	3	837	8.37	16.74	16.74	41.85
Elk	7	47.031	470.31	940.62	940.62	2.351.55
Erie	10	7,289	72.89	145.72	145.72	364.33
Fayette	4	10.226	102.26	204.52	204.52	511.30
Forest	2	7,057	70.57	141.14	141.14	352.85
Franklin	5	6.967	69.67	139.33	139.33	348.33
Fulton	8	14.794	147.94	295.88	295.88	739.70
Greene	1	1.068	10.68	21.35	21.35	53.38
Huntingdon	17	17.710	177.10	354.18	354.18	885.46
Indiana	4	4.510	45.10	90.20	90.20	225.50
Jefferson	8	23.871	238.71	477.43	477.43	1,193.57
Juniata	6	6.828	68.28	136.57	136.75	341.42
Lackawanna	3	4.308	43.08	86.16	86.16	215.40
Lancaster	5	4.983	49.83	99.67	99.67	249.17
Lawrence	6	1.966	19.66	39.31	39.31	98.28
Lebanon	4	5,641	56.41	112.82	112.82	282.05
Lehigh	1	549	5.49	10.99	10.99	27.47
Luzerne	9	27.869	278.69	557.37	557.37	1,393.43
Lycoming	11	37,184	371.84	743.66	743.66	1,859.16
McKean	3	20,634	206.34	412.67	412.67	1,031.68
Mercer	2	966	9.66	19.31	19.31	48.28
Mifflin	4	2.325	23.25	46.48	46.48	116.21
Monroe	6	13,429	134.29	268.57	268.57	671.43
Montgomery	1	328	3.28	6.56	6.56	16.40
Montour	1	228	2.28	4.55	4.55	11.38
Northampton	2	1,401	14.01	28.02	28.02	70.05
Northumberland	11	9,386	93.86	187.71	187.71	469.28
Perry	4	4,592	45.92	91.84	91.84	229.60
Pike	5	7.952	79.52	159.04	159.04	397.60
Potter	7	17.804	178.04	356.05	356.05	890.14
Schuylkill	8	9.642	96.42	192.83	192.83	482.08
Snyder	3	1.604	16.04	32.10	32.10	80.24
Somerset	7	12,013	120.13	240.25	240.25	600.63
Sullivan	7	44,395	443.95	887.92	887.92	2,219.79
Susquehanna	6	10.862	108.62	217.23	217.23	543.08
Tioga	5	8.855	88.55	194.91	194.91	478.37
Union	2	565	5.65	11.30	11.30	28.25
Venango	11	16.043	160.43	320.85	320.85	802.13
Warren	7	29.363	293.63	587.26	587.26	1,468.15
Washington	2	2,976	29.76	59.51	59.51	148.78
Wayne	4	10,690	106.90	213.79	213.79	534.48
Westmoreland	2	7,701	77.01	154.01	154.01	385.03
Wyoming	3	28,095	280.95	561.88	561.88	1,404.71
York	2	1,324	13.24	26.48	26.48	66.20
63 Counties	360	750,760*	$7,507.60	$15,032.71	$15,032.71	$37,573.02

* Fixed charges were paid to Treasurers of Township School Directors and Township Road Supervisors on a slightly larger acreage than here shown since, in certain instances, County taxes had been paid by land owners prior to their conveying title to the Commonwealth.

A woodchuck can eat as much as 60 lbs. of fresh green food in a month. In some counties the woodchuck population runs as high as 30,000 which means a very heavy damage to valuable vegetation.

The young of the brush turkey are fully feathered when hatched and can fly almost immediately. They never know their parents, as the mother bird lays her eggs in hillocks of sandy soil containing decomposing vegetable matter and allows heat from this source to incubate the eggs. The chicks must shift for themselves immediately when they come into the world.

The colors of wild animals represent all hues of the rainbow; red, orange, yellow, green, blue, indigo, violet, white, grey, black and white, and black.

ESTIMATED RECEIPTS FROM SALE OF FURS DURING THE SEASON OF 1943-1944.

	No. of Pelts	Estimated Value of Each Pelt	Estimated Total Value
Muskrats	610,968	$ 2.23	$1,363.161.46
Skunks	163,584	1.79	292.275.10
Minks	10,785	10.84	116.921.48
Opossums	110,850	.45	51,941.71
Beaver	1,281	29.95	38,365.95
Otter	21	14.83	311.50
Raccoons	46,692	3.66	170.863.54
Weasels	25,527	.90	23.043.20
Red Foxes	11,850	6.74	79.862.32
Gray Foxes	10,354	2.50	25,868.15
Wild Cats	30	2.00	62.00
Totals	991,942		$2,162.676.41



E. H. Leinbach, Esterly, left, and Division Game Supervisor M. J. Golden, Reading, with 89 crows bagged one day in September in a section where they were far too abundant for everyone and everything concerned.

FIELD NOTES

"I had an unusual experience with a family of skunks this past month. About ten thirty on the evening of September 5 I received a call from the Warren police department. Officers Munn and Outrie had received a call from the Warren General Hospital that a litter of small skunks were sleeping on the table in the basement of the nurses home, and would they please do something about it.

"Officers Munn and Outrie proceeded to the scene and, accompanied by a half-dozen nurses, attempted to scoop the animals into a cardboard box. Well, they made one pass at the little family, and things happened! The Officers beat a hasty retreat, changed their clothes, and put in a call for me.

"Like a conquering hero I proceeded to the Hospital with my trusty rabbit traps and some spoiled woodchuck for bait (some of my fox-trapping equipment) and in the morning I had two of the little fellows. The next morning I removed three more and completed the chore.

"The next morning I received a call from the Hospital that the mother skunk had fallen into the cellar window and would I please come and get her, too. I think I can claim the world's record for a quick catch on this skunk. I baited the trap with spoiled woodchuck, tied a rope around the trap and dropped it down to where the skunk was marooned. The trap had hardly settled until Old Mother Skunk stepped into it and got a free ride to the country.

"But all is not joy. I also had a very sad experience with a skunk—none of the above, but a skunk just the same. We were working traffic checks on out-of-State cars. I picked up a skunk in a box trap and rather than make an extra trip to the woods with it, I took it along with me when I took up my station on the State line. Deputy Reynolds was with me and as we arrived at our station I told him we had a skunk to release. We both went around to the rear of the car to release it and I pulled up the trunk door.

"You can imagine my surprise to see that little skunk sitting there outside of the box trap. I was rather taken back and to top it off I dropped the trunk door. Well, it seems that the skunk was tired of sitting back there and when the door come open he figured on getting out. He started to move out and the trunk door started down about the same time. You know what happened without my telling it. Mr. Skunk got himself killed. The old door smacked him right on the head.

"It can be said that Deputy Reynolds and Game Protector Norris spent the rest of that night a considerable distance from the car.

"For the information of anyone who finds himself in the same fix, there is an oil called Oil of Cassia which will kill all unpleasant odors instantly."—Game Protector George L. Norris, North Warren.

"My father, David Bush of Jersey Shore, saw quite an unusual sight recently. While fishing on the North Branch of the Susquehanna below Towanda he saw a very large fish hawk circling over the river. Finally it dived into the water but instead of coming up with a fish, it went completely under for a few seconds. Upon surfacing the bird had a very large fish in its claws. However it only lifted its prey a foot or so, then dropped it because of its size. The fish obviously was so big it pulled the osprey under when attacked."—Harold E. Bush, 504 Park Ave., Williamsport 2, Pa.

"On September 15 Protector Baumgardner and I had opportunity to watch a migratory flight of hawks. The weather had been stormy and foggy for three days and Baumgardner thought the hawks might be flying on the first clear day following the storm.

(Continued on page 31)

"Well pooch we made it! The Game Commission wants this report before January 16."

THE TRAP LINE

"AS per the enclosed picture of one days catch on State Game Land #179 in Greene County you can see that my trapping partner and I are having a lot of fun following a line of fox traps. Deputy Game Protector Albert Ciosmak and I are running the line together. I do not profess to be a fox trapper but Deputy Ciosmak has been working or playing at it for several years and knows many of the tricks that it is necessary to know if you are really successful in bringing in and catching a high percentage of foxes.

"I have hunted small game for many years and have hunted deer some and only in the past two years have tried out the trapping. I will have to say that I believe I get more kick out of following a trap line and as you approach each trap wonder whether it has had a visitor and what it was and if he came to stay or just knocked the trap and was on his way. There is something about it that keeps up the old pep until the last trap is looked at. On the day that the enclosed picture was taken we had twenty-three traps set and if you will bear with my lack of knack for writing will try to give you a play by play or trap by trap description of the days travel.

"Promptly at 7 a.m., before the sun was up, Deputy Ciosmak pounded on the door just as I had finished my breakfast and we were on our way. It is fifteen miles to the land where our traps were set and we pulled in to the gate just as the sun was coming over the horizon, a huge ball of red fire so bright that it almost blinded you. The first trap was set within twenty feet of the lane we drove in and before we got to the trap we argued as to whether the trap would have a fox or not. We pulled up to the place where we could see it and there was a big red one flat on his belly thinking, no doubt, that we would not see him. We piled out of the car and Albert grabbed his little stick, which is about two feet long and a half inch in diameter, and as he approached the fox it sprang up and showed fight. He gave it a smart tap on the nose



Game Protector John Blair of Waynesburg, and Albert Ciosmak, one of his deputies, with a day's catch of foxes on Game Lands No. 179.

and when he started to step on it, it rolled over and grabbed him by the rubber boot hard enough to leave blue marks on his shin. He was an old fox and we stood there and as we admired his big bushy tail we wondered how many rabbits and birds he had accounted for in his time. Certain writers would have us believe that he eats grasshoppers and snakes and berries in the summertime but the tracks in the snow show that he doesn't live on snow balls in the winter. But let's go. The next trap held a gray, quickly disposed of. The next one set with a grapple was gone, but not far. It held a big 'possum and Albert muttered something like "Shakreff." I asked him what he said and he replied that was a bad Polish swear word meaning dog's blood. The next trap set with a grapple was also gone but we soon found it holding another gray about fifty yards from the set. That was four traps visited in less than a thousand yards and producing two grays and a red. The next trap had a ground hog in it. His leg was not injured and he made the dirt fly toward his hole when released. I thought a ground hog was entirely vegetarian and what would he want in that set for neither the bait nor the lure smells like honey suckle or rose petals. The next four traps were blank except that one was sprung. The next trap held a 'coon which was released unharmed. The next trap held a young gray then another 'possum and then a blank. From the odor as we approached the next trap we knew what we had and sure enough it was a big white animal hyacinth. We cut a couple of long poles and went at the job of releasing him but before the ordeal was over he took on his back and let her fly. We both jumped back but did not altogether escape the shot and the rest of the day carried with us that faint, indescribible, un-washoutable aroma of the woods pussy. The seventeenth trap held another gray and the twentieth an opossum. The rest were blanks.

"Then came the part that I don't like. Skinning them. The grays have to be really knifed from the shoulders to the point of their nose. The reds are not so hard but their hide is much more tender. And more care must be taken not to tear the hide. They are then stretched on a board 50 inches long and about 6 inches across the shoulder and 8 inches across the hips. All flesh removed and left to dry for two days. Then they are turned and combed and put back on the board right side out a couple of days and then can be removed from the board as they have dried enough to hold their shape. When hung in a row they are a pretty sight and one feels that a great deal of conservation has been accomplished. There are also plenty left to carry on whatever part they have in the balance wheel of Nature. It just so happens that the wheel has become somewhat lopsided in favor of the foxes in the past few years. And where they are not thinned out the small game is taking an awful beating.

"The land on which these traps were set had been generously stocked with rabbits, quail and ringnecks and in following the trap line for two weeks I saw only two scared rabbits."—District Game Protector, John F. Blair, District G-13.

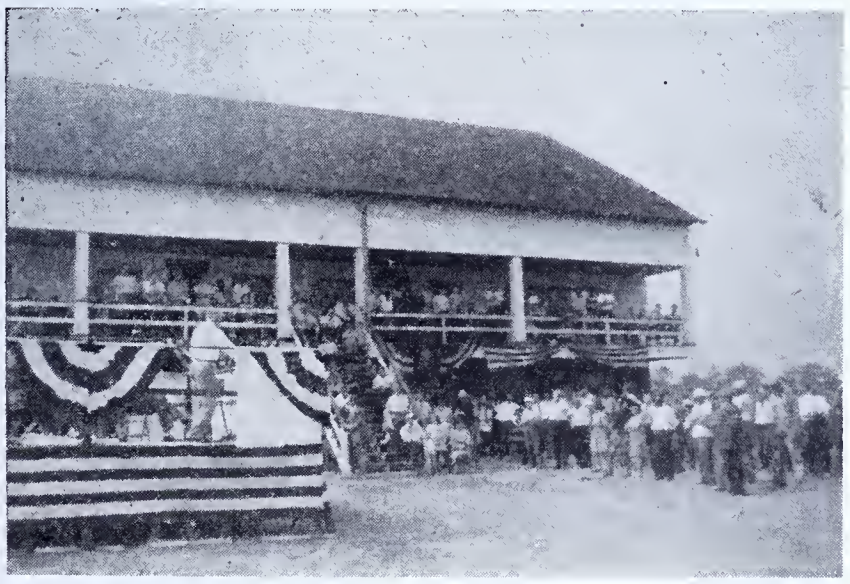


Photo by Russ Smith.



Photo by Bill Douglass.

Attorney General James H. Duff, Game Commissioner John C. Herman, and Seth Gordon, Executive Director of the Game Commission, all were speakers at the mortgage burning ceremonies of the Harrisburg Hunters and Anglers Association in September. Later numerous sports events took place including an exciting Jack Rabbit chase.

In the Beginning

(Continued from page 3)

sults are so sure—of such inestimable value we must continue, must put our every effort into the cause, thereby bringing about the realization of what our chapter has adopted as its slogan, "We pledge to Posterity The America of Our Ancestors."

You have just heard our highly esteemed president, Mr. Dilg, in his characteristic and masterful manner, unfold Waltonians principles, have heard him tell of the League's accomplishments during the short time it has been organized, have heard his urgent plea for the right sort of legislation, and I am quite sure each of us will return to our homes more enthusiastic for having had the privilege of having been in attendance. But important and far reaching as proper legislative methods are, they are in my opinion secondary to education and definite purpose.

We can never over-estimate the power of purpose. It enters into our hopes, aims, and prospects. The indomitable will, the inflexible purpose looking for future good through present deplorable conditions, have always begotten confidence and commanded success, while the opposite qualities have as truly led to timid resolves, uncertain councils and final disappointment. A vacillating policy, irresolute councils, subordination of the future to the present, efforts to relieve ourselves from existing troubles without providing against their recurrence, may bring us to momentary quiet, but expose us to greater disquiet than ever hereafter. There can be no question among philosophic observers of men and events, that fixedness of purpose is the greatest element of human success. In the transmission of mechanical power every care is taken to avoid back pressure and lost power by duplication of effort. This same rule should apply in conservation efforts. We frequently find in the same community as many as a dozen hunting, fishing and outing clubs, several thousand throughout the State of Pennsylvania, all striving to do more or less good for the conservation movement, but scattering their energies and losing most of their force by the fact, that there is always back pressure from one to the other, or what we call in mechanics, lost motion. We need a unification of ideas, a coordination of effort and a definite plan of action, something tangible to work upon. The selection of the slogan by the convention sponsors, "Pure Streams for Pennsylvania" is a happy thought as it gives us a definite plan of action, for the stream situation in Pennsylvania is not pleasant from an Angler's standpoint and from the standpoint of a Conservationist it is alarming. From every viewpoint the protection of the water supply is vital to the State and to the Nation. There can be no life, nor health for man, animals, or vegetable growth, without an ample supply of water of the right kind and quality, and at the right time. This problem rises supreme to all other needs since it involves life itself. To quote from our magazine in the words of the late Emerson Hough, "It is time to call a halt" and the Pennsylvania Division of the Izaak Walton League of America can undertake no more vital question than the pollution of our waters.

When we have taken a stand on a constructive program, that program should be defended against all who would oppose it,

(Continued on page 28)

The conservation of our natural resources is one of the chief objectives of the Izaak Walton League of America. Under its program the fight for pure streams will ever be waged relentlessly to the ultimate heritage of nature-loving people. Above, falls in Child's Park, Pike County.

Photo, Department of Highways.



High Stakes

(Continued from page 4)

go beyond that given any other ordinary plant. Keep away competitive growth—mulch if necessary—to preserve moisture and growth will follow naturally. It might be well to warn that if the grower hoes or cultivates close to the small plants he will have to be very careful not to detach the nut from the small tree. If this is done before a period near August 1 the tree will surely die.

If seed is planted in the Spring in open ground and carefully attended during the months which follow, one should have by Fall approximately the same sized seedlings he would expect to have secured from commercially grown stock. Any difference between his home grown and commercially grown seedlings would be represented in the difference between the quality of the seed planted.

After seedlings have grown in the "nursery row" for a year or two they may be moved to permanent locations. Indeed, this transplanting should not be too long delayed because experience seem to indicate the larger the tree the slower and more uncertain its recovery. Chestnut seedlings transplant readily but they never appear very happy about the operation and will often sulk for rather long periods before finally deciding to forget the matter and get on with the business of growing. Once started, however, they grow rapidly—that is, within their characteristic ability to do so.

There is a very definite tendency to plant nut trees too close together when establishing a nut orchard. One may be somewhat influenced by the amount of ground available for his trees and his desire to get as many as possible upon a particular area. Planted with small trees, a spacing of twenty feet may appear to be more than sufficient unless the orchardist expects to cut out the crowding members of his tree colony as they grow larger and begin to spread. The economies of the question at such time becomes painfully apparent as the planter courts the wish that more space had originally been given these trees. With vigorous growing trees, thirty to thirty-five feet is not a waste of land. This spacing will eliminate the horror of removing alternate trees later. It is difficult to imagine and takes more courage than the average individual possesses to cut out fine specimens to make room for their crowded neighbors.

Chestnuts will grow in a wide variety of soils but they will insist upon one well drained. Planting in heavy, poorly drained soils is a guarantee of their early and complete destruction. Observation seems to indicate that very little of really fertile land has been given over to chestnut planting. Hillsides, worn-out and farmed-out abandoned fields have become in a large measure the locations of established plantings. Since, as has been pointed out earlier, these trees are not nearly so tolerant of poor soil as is our native specie, we might have some suggestion concerning the poor results generally experienced in the State. Most all of our plantings are in soil of decided acid reaction, but chestnuts seem to do pretty well here. There are those who contend that lime is injurious to these trees and warn against its use about them. I am not so sure that this assumption is wholly true for I have seen them grow, and grow lustily, in soil which was of decided alkaline reaction. Further experiments and observations will have to decide whether or not chestnut trees will be harmed or benefited by lime applications.



Mr. Walker pointing out one of the healthy trees.

Having planted his seedlings as thought and area dictated, the grower may lavish his affection upon them. He will seek to satisfy their every want and, if his interest does not lag, he will soon become acquainted with every single tree in his orchard—acquainted to the point where he will know something of the individuality of each and every one. He will be quick to know their habits, faults, promises and values, and from these he should be able to determine which will have the *most* value. Should he find, perchance, a particular individual which meets with the standard he shall have set up, he may propagate from this individual by grafting wood from it to the stock or roots of any other of his trees. Seed from such a tree will, in all probability, produce trees widely varient from the parent. This fact precludes the possibility of using seed to further the propagation of the individual. If one is to develop trees solely upon the method of *selection* it will be necessary for him to eliminate all such trees which do not meet with his needs or standards. If these are *healthy* individuals it would not be necessary to destroy them by digging them out and burning them; they might well be used as stock upon which to graft the more desirable ones. This procedure hastens the fruiting propensities greatly. Grafting is not difficult and one should certainly learn the processes, because without this knowledge he will be seriously handicapped in carrying on the most successful work.

It was never the purpose of this article to attempt to cover all the various phases of chestnut growing. To exhaust them would require writing a manuscript of book length proportions. We might, for example, go into serious detail as to the selection of seed; an exhaustive discussion of the storing of seed; a further discussion of soils, fertilization, transplanting and care of the orchard. But since hundreds of small plantings already exist covering, perhaps, every mistake we can possibly make, it is my thought and hope that something herein suggested may be of value to the reader in making his planting a somewhat happier experience. There should not be any undue disappointment if we readjust our program to include cultivation, fertilization, selection and reselection, for these are fundamental. These factors applied with common sense and perseverance will permit you to gather the fruits as a result of your efforts.

Harry L. Kile and Charles H. Heffentrager, guards at the New Eastern State Penitentiary, Graterford, have kept a record of game killed on the highway between their homes in Souderton and their place of employment.

This record covers a distance of 12½ miles each way and has been kept during the eleven months closed season on small game and comprises the following: 62 rabbits; 25 skunks; 17 muskrats; 10 'possums; 3 squirrels and 8 hen pheasants.

Twelve house cats also were killed on the highway during the same period.

In the Beginning

(Continued from page 26)

for no real sportsman's organization should ever enter into partisan politics. Politicians think in terms of how many votes, the stronger we are, the freer from political entanglements, the greater our influence and power.

Sportsmen are realizing more and more the absolute necessity of organization, and education, for they are (conservatively speaking) synonymous; the manufacturers, farmers, and tradesmen long ago recognized the value of organization. If the conservationists are to be recognized by the public and the politicians, they must assert themselves. Constructive conservation laws are futile, unless a vigorous campaign of education is carried on and the public taught its cash value, for the almighty dollar is a very potent argument. Unless such action is taken, outdoor America will be buffeted from pillar to post while forests are swept away. streams despoiled, fish life exterminated and game depleted, and you and I will continue to hold the sack.

We owe to posterity the same privileges we have enjoyed, the right to healthy bodies and clean minds and it is only through organized effort that we can hand down to them a green and unspoiled out-of-doors. It takes real men and women, red-blooded, two-fisted, fearless and courageous to form a Sportsman's organization and to maintain



Photo by Leo A. Luttringer, Jr.

John Hoover, Accountant in the Commission's Comptroller's office, points to one of the safety zone placards erected under the Special Wildlife Refuge Program sponsored jointly by local clubs, the Commission and the landowner. They make for goodwill and are generally observed.



George Spotts, Brownstown, happily displays a nice one bagged in Tioga County, season of 1941. But his smile wasn't so broad by the time he got old bruin off the mountain. What's workin' for is worth havin' is a true sportsman's motto, however.

interest. We cannot live in hopes with our arms folded; fortune smiles on those who roll up their sleeves and put their shoulders to the wheel. If true and worthy motives are to be inspired, if your interests and those of your children are to be safeguarded, if your sport is to be protected, you must assume this task. To be successful, you must place the "cause" above self, forget all petty jealousies and personal aggrandizement, and work tooth and nail for the common good. Quarrels, bickerings and selfishness only tend to weaken the organization and lessen our chances of having constructive legislation passed.

Every year sees its annual crop of new organizations which flourish for a year or two and then decline, the result of lack of definite objective or one man control. One man organizations cause a great many failures, for a well meaning but misguided zealot, without a definite program will form a booming organization which becomes top-heavy and falls of its own weight, just as soon as the first enthusiasm wanes, with the result that it becomes difficult to get the sportsmen interested a second time for they will point to the failure of the first one and say, "It can't be done here." It can be done and it is up to us to do it.

There are geographical and climatic difference to overcome, which can only be surmounted by a better understanding of the other fellow's problems and by a broad minded policy. One of the most important functions is to inaugurate and defend good forest, water supply, fish and game laws and to combat obnoxious and freak legislation. This can only be done through a careful, intelligent and unbiased study of conditions, being not unmindful of the rights and privileges of the landowners. Politicians with whims and fancies and too often with purely selfish interests will upset a progressive program and trade away good legislation, these hands more than anything else, coupled with lack of unity on the part of the Sportsman, have blocked much progressive legislation in the past.

In a recent communication from the National headquarters relative to increasing our chapter memberships, they have suggested as a slogan, "Every Member Get a Member." That is fine, splendid, but we in Pennsylvania will have to add to that if we are to keep our place as the most progressive conservation state in the Union. "Every Chapter Form a Chapter."

Is it not worth while? When every river becomes a public asset and with our sewage turned into fertilizer giving us lower living costs. With healthful playgrounds in our public forests for all the people, the income from the forests paying for parks, public building and schools, with fish and game in our streams and covers, when Sunday picnickers no longer up-root our young evergreen trees, ferns and wild-flowers, leaving their garbage and litter scattered all over the landscape to offend the eye and collect flies and other insect pests. There can only be one answer, and working to that end we have the greatest conservation movement ever inaugurated, the Izaak Walton League of America.

The Stove League Reconvenes

(Continued from page 11)

a century, with mutual admiration for each other.

Grampy Gates spent little time on his personal appearance. His snow white hair was usually in need of a good cutting. His beard, about eight inches long, running to a sharp point, was streaked on the left side with brown. Grampy always spit out the left side of his mouth and sometimes the tobacco juice just leaked out and ran down his beard.

"Say, Lem, you know 'Doc' Kinkaid's visitin' at our house. He's a fishin', but don't ketch nothin' "—Then Grampy stopped to get his breath. "He come in from a fishin' tonight and called me upstairs. Has one of them big suitcases. Got out a bottle of pre-war medicine and gave me a big dose. And I took 'er too cause it was good stuff. Help't my cold 'siderable. Told me to help myself and when he went down to wash I got another dose. Don't know, Lem, if I can, but I'll try and get one for your cold—if there's any left. Forgot me purse so charge the 'terbacker' " reminded Grampy as he bade his lifelong friend good night.

Down the road he tottered, obviously slightly reeling under Doc Kinkaid's liquid cold treatment. At one point he paused to spit and in doing so spat squarely in the center of Priscilla Parson's perfected petunia patch. "Nice ain't they," mused the old gentleman as he continued homeward.

Back in front of the store the boys were still in earnest discussion.

"In a little more than three weeks the groundhog season will open again, and along with it the undertakers will get busy," cited Bob Darr.

"And the thing that surprises me is that before there was any law on the groundhog very few hunters got killed," reminded Jobson.

Freeman said that the Game Commission had published five "don'ts" as warnings to groundhog hunters, and if they observed them, accidents of this character would be materially reduced. Freeman enumerated them as follows:

(1) Don't sit in the grass or in a field.

(2) Don't sit with your back against a tree.

(3) Don't sit near a groundhog hole.

(4) Don't fail to wear plenty of red, particularly on your head.

(5) Don't shoot until you are certain your target is legal game and not a human.

"They're pretty sound 'don'ts'," responded Bob.

"Nothing much we can do about that, boys, except to observe those suggestions and caution every fellow we see even going groundhog hunting," the president said.

An old Ford, without any top, sped down the road in a cloud of dust, much too thick to observe its occupants.

"Must be that grandson 'o'mine,' " Thompson volunteered, without even a question on the subject.

"Are any of the guns being used by hunters unfit for that purpose," queried Bob, addressing his remark primarily to Freeman.

"The Game Commission says that some of them are, and I guess they know what they're talkin' about, especially when they see so many each year in holding accident hearings. They say these old pull back hammer types are responsible for a whale of a lot of accidents. Most of the hammers pull back pretty hard and have no safety device. There's lots of testimony that shows, 'cold fingers that slipped off the hammer before it could be carefully released,' caused the accident. This is the kind I mean," said Freeman, as he took a picture from his pocket and passed it among his friends.

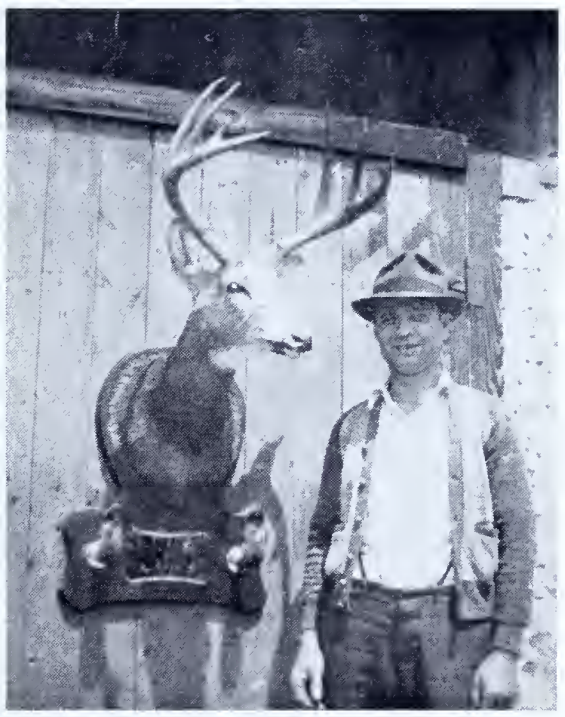


Photo by Stephen R. Stefanides.

Smiling Frank Mazar, West Wyoming, has a good reason to feel exhuberant over the 11 point, 175 pounder he bagged last season in Sullivan County. It makes 17 for him in 15 years. Good huntin' if your afield this season! Nimrod Mazar.

"Then there's the old single barrel shotgun, with the exposed hammer, that causes a lot of accidents," continued Freeman. "No safety device and the firing pin is usually extremely long. Even when the hammer is down a bump on it will usually discharge the weapon. This is the kind I mean," said Freeman, as he passed another photograph among his friends.

"I'm familiar with both of these guns, and nobody, regardless of how careful he may be, should be allowed in the woods with either of these guns," remarked Diz Clark.

"That's right," echoed Corney—"Just last Fall I met an old man up on the mountain huntin' grouse with one of them old 'two hammers.' I cautioned him about it, and he said—'son hain't never gone off, for 40 years till I wanted her to.' A few days later I see in the paper where he shot one of his best friends. Huntin' with the hammers back, 'cause they was stiff, he stumbled and his friend got a load of shot in his back—and pretty near kicked off, too."

Bud Thompson drove slowly up the road, saw the Stove Leaguers in session and made a quick right turn, stopping suddenly at the side entrance to the store.

Hearing a cat-like noise inside, 'ole man Thompson peered through the not too clean sash, and shouted none too uncertainly to his grandson to, "Git out of them gum drops." His declaration was met with quick response.

"There's one thing that has been troubling me about these accident cases," continued Freeman. "Should we advocate compulsory public liability policies for all hunters before they secure a license? Opposed to the idea are the people who say that such a plan will have a tendency to increase accidents, because everybody knowing that he would be adequately covered by insurance would have little regard for his friend in the woods. I'm not convinced those of that school of thought are right. Seems to me some of the financially irresponsible persons ought to be made to carry it, and at least furnish some income to their victims or the victim's families in fatal cases."

"No use waitin' till their involved in an accident and then make 'em furnish liability for the next fellow," injected Darr.

"That's absolutely right," said President Joe, "and some of those fellows would have a pretty tough time getting their second liability policy if they had been mixed up in a prior accident."

"I think we should give a little more study to that phase before we go on record," reminded the president.

"Nothing has been said about these big game hunters and their accidents," said Jobson, who until this time had been comparatively quiet.

"Nothing much need be said," replied Freeman. "Most of the rifles, except the old hammer type are safe so it seems most of their accidents are caused by 'GREED and CARELESSNESS'."

"Well boys it's getting late, almost ten-thirty. We could spend the rest of the night on this problem and still not solve it. I don't know anybody that has," he added. "A friend of mine worked up a little resolution that I would like to have you fellows consider personally endorsing tonight," it reads:

RESOLVED, that I as a hunter and sportsman will do all in my power to warn persons observed to be careless in the handling of firearms; and offer my services to train any person in the safe methods of handling firearms; advocate the wearing of bright red while hunting; and closely cooperate with the Game Protectors in the enforcement of all the safety laws, by reporting violations and aiding in the conviction of offenders; and that I will at all times personally observe rigid safety measures, that my fellow sportsmen and I may enjoy continued years of hunting, unmarred by accidents afield.

The boys all assured Mr. Freeman of their willingness to unreservedly accept the resolution, and to vigorously promote it.

The meeting broke up with cordial invitations from all of the members for Freeman to meet with them again soon.

He assured them he would, but few knew that Marion had assured him she would be "waiting up for him."

A HUNTER'S DAY

(Continued from page 9)

came of the deer, I didn't know till I saw him lying back there in the woods. But what became of me, my shoulder and leg both are telling me. I landed hard on that ground, let me tell you!"

"What about you?" Davey cried, looking at me. "I'll bet you had a shot, too!"

"I did not!"

"If the truth was known, I'll just bet you did!"

Hallman started to throw dirt on the campfire. "We better start out again," he said.

By the time we reached the car, the deepening gloom that heralds the end of a winter's day had begun to settle over the forest.

As we tied the deer on the car, I was thinking. This deer might have been mine, had I pulled the trigger. I hadn't seen horns, although I had been almost certain that the deer was a buck. But I was not sorry for my cautiousness. Had I not been cautious in the morning, perhaps I would have shot my friend. I remembered the old man's story.

The forest was still, very still. Peace had come again to the wild. Man had come to storm and shout and have his fling, but wildlife had waited patiently, knowing with that sixth sense that darkness would come and Man would go back to his civilized habitat. I thought of this, marvelling at the stillness.

It was the end of a hunter's day.

CREDIT

On page 6 of the September 1944 issue we ran a photo of a large buck head to illustrate a special article, but the original permit bearing all the facts became mislaid and didn't turn up until recently. Fred Stoll, Taxidermist, Elkins Park, took the picture. The deer was killed in Potter County season of 1943 by George Bergmann. The spread was 22½", outside curve 26", beam 4½" and largest point 14".



Left to right: S. Ward Gramley, Millheim, Lester Rote, Spring Mills, and Dr. J. N. Perce, of Millheim, with nice bucks shot the first week of the 1943 season in Clinton County.

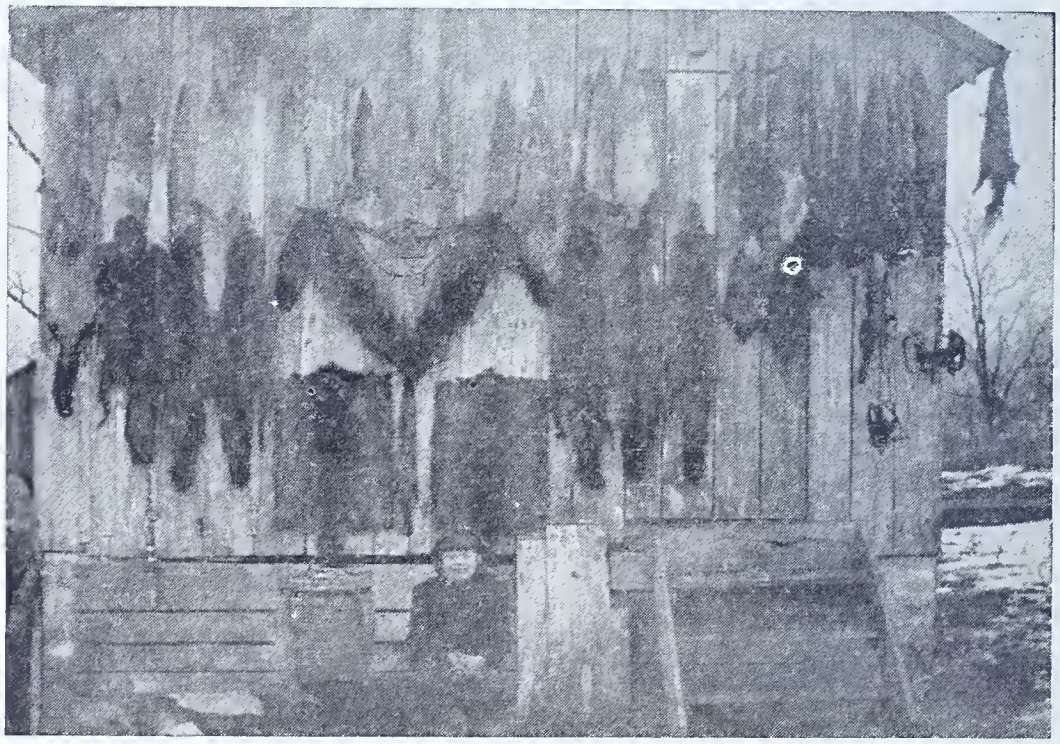


Photo courtesy Ralph E. McCoy.

Theodore Miller, Lewistown, R. D. 3, is a very good trapper as the above photo amply proves. Note the "V". The photo was taken December 7, 1941.

The Why and How of Hunting Sights

(Continued from page 7)

adjustment which the military marksman called a "point and a half" the target marksman would call "6 minutes."

When you get your windage just right, shooting on a day when there is practically no wind blowing which might deflect the bullet sideways, that windage reading is called "zero." The zero on a good rifle is almost always constant and does not usually vary with the distance (at mid-ranges) for all kinds of high power ammunition.

General

With a new rifle the required sight adjustment, both elevation and zero, may change slightly during the firing of the first 20 to 50 rounds while the rifle is pounding itself down to a constant position in its stock. The same change may take place when you take a rifle out of its stock and then assemble it again. After that a good rifle should maintain a quite constant elevation and zero until the bore becomes considerably worn by erosion. Of course different makes and loadings of cartridges may require quite different adjustments of the sights.

Remember that at any given range changes in sight adjustment to make the center of impact and point of aim coincide are purely a matter of angles. Trajectory or the velocity of the cartridge has nothing to do with it. It is only when changing from one distance to another that trajectory or velocity becomes a factor. Here the cartridge with the flatter trajectory will require a smaller angle of elevation between the two distances. A following article will discuss trajectory and estimating distance.

Notes From the Field

(Continued from page 24)

"We counted a total of 127 hawks as they passed our outlook. It was impossible to identify many of them, as they were too far distant. However, we were able to catalogue the following: 34 Broad-winged; 27 Sharp-shinned; 5 Marsh; 14 Cooper's; 5 Red-tailed; 3 Sparrow Hawks and 2 Ospreys. This was probably the vanguard of the regular seasonal hawk migration through these parts. I intend to continue observations on these flights from time to time.

"As an item of added interest we saw 2 Ravens, and countless numbers of butterflies."—C. R. Studholme, Research Assistant, Saluvia.

"Last Sunday a gentleman came to my home in an excited frame of mind and advised me that he had a live skunk in his cellar and wanted to know what he should do about it. I advised him to pick the animal up, put it in a bag, bring it to me, and I would take it out into the woodland and release it. He said he would not think of doing that and wanted to shoot it. I told him that inasmuch as it was in a township he should not shoot it as the creatures were protected by law. After some deliberation I agreed to go to his home and take the skunk alive in such a way that it would not make a gas attack upon his household. I procured a burlap bag and went to the home of the gentleman and after moving many boxes, baskets and flower pots I got the skunk out in the clear and started to work on it. I finally got it cornered and forced it into the bag with no ill results and carried it to my home and hung the bag on the clothes line until I had lunch. Then I put Mr. Skunk in my automobile and transported it out into the woodland where I released it. It walked off rather briskly and seemed to be well pleased to again have its liberty. Contrary to the belief of many, the skunk is not a hard animal to handle and will not resort to gas as a protection unless you provoke it or handle it too roughly. It will always warn you if you are working on his skunkship too fast or too hard and when that warning does come you better take heed and slow up a little until it settles down again."—Game Protector Francis E. Jenkins, Chinchilla.

Enroute to work on October 1 at 4:30 A.M. Fred F. Weatherbie of North Wales, Montgomery County observed an 8-point buck and doe on Route No. 152—one-quarter mile south of Prospectville.

Of all the people who prefer their sports out of doors, those who hunt and fish spend more money in the enjoyment of their favorite recreations than any other class, according to a Remington Arms Company spokesman.

Frank G. Menke, the noted sports statistician, has compiled some interesting comparative figures on the subject which appear in his latest book. They are: "The pre-war annual sports bill of this country was as follows: Fishing, $1,200,000,000; hunting, $650,000,000; motor boating, $600,000,000; golf, $500,000,000; bowling, $450,000,000; skiing, $150,000,000; attendance group (baseball, football basketball, horseracing, etc.) $260,000,000; miscellaneous, $190,000,000. Total $4,000,000,000."

At a recent meeting the Southern Lancaster County Farmer-Sportsmen's Association again decided to give a one year subscription to the GAME NEWS or *Angler* as a part of its membership fee.

A 300-pound black bear escaped from a Virginia Fish and Game Commission exhibit on a crowded downtown parking lot recently and severely clawed one spectator who helped recapture her.

Attendants said the bear, Bootsie, was struck squarely in the schnozzle by her cage companion, 400-pound Blackie, in a fight over an apple. Blood spurted and Bootsie flew into a rage.

A keeper cautiously opened the cage door and tossed in another apple in the hope of placating Bootsie but she rushed for the door, bowled over the attendant and escaped.

Bootsie made her way through the squealing crowd, including many children. M. C. Wade, Richmond, a spectator, cut down a rope and looped it over Bootsie's neck just as she reached the street. The bear turned, jumped on Wade with four feet and started clawing. Attendants and police swarmed in and got her under control.

"The first of the month two of us packed a small truck with light and camera equipment and headed for McKean County to attempt night shots of a beaver dam. Game Protector Claude Kelsey showed me one where we spent three nights getting some good pictures. The most interesting action proved to be two young fellows helping their parents (presumably) build the dam. Most of their efforts were attempting to place mud where it belonged, and when they would start a large log or something big down stream they would get it tangled on the way, then leave it for the larger ones who could always handle it like they knew how. We attempted to get a picture of a beaver going in a trap where Mr. Kelsey had to remove one, but they were too timid to approach during daylight. I started for the lights that were at the other dam but I was unable to get out of the field of mud until too late. I know that the scene could be gotten at night in front of the lights, because my system has been getting my beaver to perform near normal.



While turkey hunting in Clinton County last year Earl L. Berger observed the above horns wedged in a tree about 4½ feet from the ground. Underneath were the bones and decomposed carcass of the animal, or were they of the same animal? At any rate something happened to the carcass of the big buck that wedged its antlers so tightly in the fork of the tree.

"You will be interested to know that Mr Kelsey and myself, accompanied by Al Todd who was with me, and Ivan Haines of Duke Center, were able to count 238 deer while traveling only 22 miles and spotting with my lights."—Robert B. Ford, Homestead, Pa.

"It's getting close to hunting season so I would like to tell you of an experience that has happened to me. This happened three days before I entered the armed service this year.

"On October 7th I was out running my beagle hound; being near hunting season I was training him on the few rabbits that were around. We, my father and I, were running the dog in the woods outside of Edgeworth, Pa., where we live. The dog kicked up some sort of a trail and ran it about an hour. In about another half hour I saw a fox cross the trail in front of me followed by my dog, (Shorty). I decided to bring my shotgun out the next day. I never heard of many foxes around here, being only a few miles from Pittsburgh, so I wasn't very sure of seeing the fox again. The only size shells I had for my 12 gauge shotgun were No. 6, so if I saw him he better be close.

"I took the beagle out on the 8th and sure enough he struck the trail. About an hour later I saw the fox cross the path I was standing on. He came within forty feet of me and I shot him. He folded up and died immediately. He was a 12 lb. grey fox. I had to leave for the army on the 11th, Wednesday, so I decided to take a jaunt out to the woods on the 10th, my last day at home. The same thing happened as before, and the beagle brought the fox within forty feet of me. One shot and I got him, a nice 14 lb. gray fox. I call this some incident—getting two foxes with two shots and getting them with a shotgun with No. 6 shot, and having the foxes run by a beagle hound and seeing my first foxes in my hunting span.

"I guess these foxes accounted for the shortage of game around here.

"I am eighteen and have hunted for six years and went along before I was allowed to hunt.

(Continued next page)

"I got a 12-point buck last year with a rifled slug. Here's hoping you will appreciate this incident and that Pennsylvania has a great hunting year."—Tom Wehner, Camp Croft, S. C.

Dr. Clarence Cottam was recently appointed Chief of the Division of Wildlife Research of the U. S. Fish and Wildlife Service, succeeding Dr. Wm. B. Bell who retired on August 1.

Dr. Cottam has been associated with the Service and its predecessor agencies as a biologist since 1929. From that time his biological assignments have covered intensive laboratory work in economic ornithology and mammalogy, field research on management of waterfowl, upland game, depredations and control of injurious birds, marsh ecology, refuge management, and the coordination of wildlife conservation with other land and water uses.

Guy C. Bartlett had a number of sheep injured. One animal was apparently chased into a grapevine thicket and broke its neck. Later two members of Mr. Bartlett's family and a neighbor saw a doe deer chasing the sheep. She would rush a bunch of them and when she caught one she would butt it so hard she would knock it down. She would charge one bunch after another, knocking them sprawling. This kept up until Mr. Bartlett had time to go to the house for his gun and kill the deer. He called Game Protector Leslie Wood immediately and reported the matter.

There are more than 400 lakes and ponds in Pennsylvania. Most of them are in the northeastern counties. Wayne County has 112, Susquehanna County 77, Pike County 56, Lackawanna and Luzerne Counties about 40 each and Monroe County 27.

"Our blight-stricken chestnut, native of Pennsylvania, is slowly coming back in rather nice shape in many places. I suggest you draw a poster explaining the correct way to take the chestnut burrs.

"I see cars stop out here on the mountain road on Sundays, and their occupants get out and break branches from the tops of the young chestnut trees, ruining them. At this rate it will be a long time before chestnuts are again plentiful in our Pennsylvania forests.

"My way of taking burrs is with an old stiff bamboo fish pole about 10 ft. long, or longer as you may wish to have it, with a good sharp mower machine knife riveted on the end of it, so that you can slide or push up twig under burr and neatly cut same off without injury to the young tree.

"Will you kindly see what you can do in regards to this?

"I'm an ardent outdoor man and I'm all out for creating better wildlife conditions. and better hunting."—Ray A. Moyer, R. D. No. 2, White Haven.

"On the afternoon of September 11 I discovered a brush fire at Brady's Lake. It was beyond my control and I returned to Thornhurst to get assistance. The fire warden in the Pocono Lake District was not available, as his crew was fighting one fire and had the second one to go to when they returned. The fire wardens in the Thornhurst district could not leave their district without authorization from the Fire Inspector or District Forester. I was unable to contact either the office in Scranton, or reach Mr. Vogler at his residence. I finally got in touch with District Forester Pyle, at the Penn Stroud Hotel in Stroudsburg, and he authorized Fire Warden Bailor to take his crew to Brady's Lake. When we reached the lake, the fire had died down a lot. We extinguished it at the danger spots and returned home. A heavy rain occurred before dawn and continued for two days, and completely extinguished the fire."—Game Protector H. D. Carroll, Thornhurst.

Young nighthawks, being equipped with strong feet, can run nimbly. There parents, however, can scarcely walk as they have lost much of the power of their foot muscles, although they can fly exceedingly well.

Contrary to the belief of many, the rattlesnake gets more than one button on his rattle each year.

A bird which has no wings whatever is the apteryx of New Zealand. His native name is kiwi-kiwi. He has a long bill, big legs and grayish hair-like feathers over his wingless, tailless body.

The usual speed of common birds in flight is about 25 miles per hour.

A bird which has wings and yet can't fly is the penguin.

The largest known fish is the whale shark which may reach a length of 45 feet.

Headlights on fish? Yes, there is a fish called photoblepheron, which swims in and out of the coral off Banda Island, lighting its way with strange luminescent spots near its eyes. It has a curtain of pigment to draw over these spots for blackout purposes, for it cannot "turn off the light."

In Bolivia the natives use the armor-plated skin of the armadillo for musical instruments.

Regardless of his name, the main diet of the sparrow hawk is made up of grasshoppers.

The famous Douglas fir tree is not a fir tree. It is a false hemlock. Neither is the red cedar a cedar. It is a true cypress.

PENNSYLVANIA GAME COMMISSION

OFFICIAL 1944 OPEN SEASONS AND BAG LIMITS

(All Shooting Hours Based on Eastern War Time)

Open season includes both dates given, Sundays excepted for game. **On November 1 no hunting of any kind before 9 A. M.** With this exception, shooting hours daily are 8 A. M. to 6 P. M., except from July 1 to September 30 inclusive, 7 A. M. to 8:30 P. M. (See Special Regulations for hours to set traps in open counties.) Raccoons may be hunted at night, with a noon-to-noon daily limit.

Raccoons, by individual or hunting party*	4	20	Oct. 23	Feb. 1, 1945
Raccoons, by trapping (Statewide)*		20	Nov. 1	Feb. 1, 1945
Fur-Bearers—(See note under Special Regulations) *				
Minks and Skunks*	Unlimited		Nov. 1	Feb. 1, 1945
Otters*	Unlimited		Nov. 1	Feb. 1, 1945
Muskrats (By traps only)*	Unlimited		Dec. 1	Feb. 1, 1945
Beavers (Traps only. See 31 counties closed below)*	2		Feb. 15	Mar. 1, 1945
Opossums	Unprotected until September 30, 1945			

***SPECIAL REGULATIONS**

Raccoon Hunting—The season begins at noon on the opening date, and ends at same hour on the closing date.

Raccoon Trapping—Traps not to be placed before 9 A. M. on the opening date (see instructions below concerning lifting traps on closing date).

Beavers—No trapping in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bucks, Cambria, Cumberland, Delaware, Fayette, Franklin, Fulton, Greene, Huntingdon, Indiana, Juniata, Lawrence, Lebanon, Lehigh, Mercer, Mifflin, Montgomery, Northampton, Perry, Philadelphia, Somerset, Washington, Westmoreland, and York. **Non-Residents may not trap beavers.** One person may set, tend or operate 10 traps only. **Traps must not be placed closer than 15 feet** from the waterline on any established beaver houses. **Pelts must be tagged within 10 days after season,** and may not be sold or otherwise disposed of until properly tagged. Present them to Protector in District or County where trapped.

Trapping—Traps for fur-bearers and raccoons not to be placed before 9 A. M. on Nov. 1, or before 8 A. M. on any later opening date for trapping. The season on the last date indicated for trapping closes at 12 o'clock noon to permit removal of animals caught on the last night of the season and lifting traps by daylight.

Snares—May be used without springpoles for taking predators from December 16 to March 31, 1945, in all counties except Allegheny, Armstrong, Beaver, Berks, Bucks, Cambria, Chester, Dauphin, Delaware, Fayette, Greene, Indiana, Lancaster, Lebanon, Lehigh, Montgomery, Northampton, Philadelphia, Somerset, Washington, Westmoreland and York.

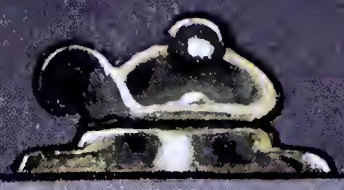


Photo by Geo. Leibenknecht.

Hunting party of 1943 with trophies bagged in Lycoming County. Left to right kneeling: Carldean Wilt, York; Junior Spahr, Dover; Carl Wilt, York; Melvin Spahr and Harry Strayer, Dover; Walter Ziegler, Proctor; William Huzey, Canton; Harry Neiman, and Niles Dennis, Dover. Standing, Ivan Stough, Dillsburg; Frank Krall, Kralltown; Earl Wismer, Doylestown; Leroy Walton, Dover; Charles Krall, Kralltown; and Spreckles the dog. Missing from the photo are: Geo. Leibenknecht, Dover and Stephen Dinda, Doylestown.

PENNSYLVANIA Game News

January 1945 Ten Cents





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PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

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VOL. XV, NO. 10

EDITORIAL

January, 1945

IN THIS ISSUE

★

he Preliminary Game Kill

★

he Problems of Game Bird Introduction and Propagation

★

Hunting a la 1950

★

Invasion from the North
By Jacob Bates Abbott

★

Leaves from a Hungry Hunter's Notebook
By Sherman Lee Pruitt

★

Analysis of the Late Fall and Early Winter Muskrat Population in Northern Pennsylvania
By William C. Grimm

★

Letters to the Editor

★

Pictorial Review

★

Current Topics and Field Notes

★

Cover by Jacob Bates Abbott

★

CONSERVATION EDUCATION

At its meeting on January 11, at which time Mr. Ross L. Leffler was re-elected president and Mr. Robert Lamberton vice-president, the Game Commission gave further serious thought to the matter of furnishing supplementary reading on the Commonwealth's natural resources to elementary school children. The Commission agreed to provide the material, which is already available in the form of four splendidly written and beautifully illustrated booklets, at cost. All of them were carefully reviewed by Dr. Francis B. Haas, Superintendent, Department of Public Instruction, who has given them his stamp of approval, and by the heads of other State Departments interested in conservation in one form or another.

In the very near future a plan of canvassing every school in the Commonwealth will be effected, the details of which will be made public later. If the readers of the GAME NEWS as far-sighted conservationists, the parents of children whom you want to see grow up from the very beginning with a sense of appreciation for the value of our soils, forests, streams, and wildlife, will help put this program across, they will be making a real contribution to the future of Pennsylvania's economic, social, and recreational welfare.





Big Game Hunter 1945



Pat, 11 year old English Setter belonging to William Douglas, Harrisburg, retrieving a live ringneck pheasant. Douglas took the photo himself.

THE PRELIMINARY REPORT ON THE 1944 HUNTING SEASON

(Based on Estimates of Field Officers)

FOLLOWING its regular annual meeting on January 11, during which it reviewed detailed reports of the recent hunting season, the Commission for the first time in several years made public a preliminary statement of the approximate game kill for the past season, based wholly on the estimates of its field officers.

Years ago, such estimates, plus tabulation of a few thousand hunters' reports, were the only means of approximating the annual bag. During the past seven years, however, anywhere from 93% to 98½% of the license holders submitted, in accordance with the law, individual reports which were tabulated, thus presenting a more accurate picture.

The field estimates for the past season, according to previous experience, will be lower in some instances, higher in others, than the 1944 final tabulation of individual reports. Based on past experience field estimates have been considerably lower in the aggregate, but they serve as a measuring stick while the individual reports are computed.

The 1944 Harvest Estimates

The game harvest estimate for 1944 is as follows: Deer, Legal Antlered, 15,069; Deer, Legal Antlerless, none; Bears, 264; Rabbits, 1,287,850; Hares (Snowshoes), 1,282; Hungarian Partridges, 206; Squirrels, 513,414; Raccoons, 48,306; Wild Turkeys, 2,242; Ruffed Grouse, 53,389; Ringneck Pheasants, 244,432; Quail, 23,775; Woodcocks, 11,605; Rails, Gallinules and Coots, 5,915; Wild Waterfowl, 40,863 and Woodchucks, 134,643.

With fully as many licenses issued during 1944 as the previous year, the kill is considered a fair one in view of the following conditions:

1. About one-half the normal number of hunters were afield this season.

2. They did not hunt as many days or as many man-hours, and little enthusiasm was shown after the third or fourth day.

3. Weather conditions were generally unfavorable, especially for the bear and deer seasons.

4. Certain game was less plentiful.

Status of Game Supply

It was reported there was anywhere from a 30% to 50% reduction in the grouse population, due perhaps to two successive bad hatching seasons and other factors; that the decrease in the crop of ringneck pheasants was disturbing and that field officers in the best pheasant regions reported a 33% decrease in the kill, attributing it to a poor breeding season and to a corresponding increase of predators, including foxes, opossums, skunks and raccoons, the latter also being abundant elsewhere throughout the Commonwealth. Pheasants in other sections either held their own or showed a satisfactory increase.



Donald L. Corbett, Jr., East Brady, above, hunted for the first time last season, with his first license, his first gun from which he fired the first shot, which killed the first rabbit chased by his party's beagles on the first day of the season. Don is 12 years old and hunted with his dad and a companion.

Rabbits and squirrels were reported less this season except in northwestern Pennsylvania, where a good bag of cottontails was taken.

Woodchucks showed a remarkable increase, and it is believed their numbers may not be substantially reduced until returning servicemen begin taking their toll of whistlepigs.

Bobwhite quail showed a slight increase generally—a very gratifying observation—whereas the Hungarian Partridge seems to be on the verge of extermination.

Wild turkeys held their own, in fact even showed a slight increase in some of the north-central counties where stockings were made during the past couple of years.

Woodcock and waterfowl shooting fell off considerably, due primarily to weather and migration which did not bring the birds into Pennsylvania in abundance during the season.

Deer were generally conceded to be more plentiful, and anywhere from 10% to 12% increase was reported.

Bears showed a considerable increase throughout their entire range, and twice as many could have been taken without making an appreciable dent in their ranks. Many bears were observed by hunters during the deer season.

Too few hunters and bad weather the first few days were chiefly responsible for the low bear and deer kills, with a noticeable lack of the usual organized drives.

A recapitulation of the remaining supply of both big and small game compared favorably with the supply left over at the close of the 1943 season, excepting deer, bears, raccoons and woodchucks which are more numerous, and grouse which are at a very low ebb. However, the Commission is confident a very satisfactory increase should re-

(Continued on page 32)



The first Pennsylvania State Game Farm for raising ringneck pheasants was established in 1929. Above are a few thousand cock birds in a covered holding field awaiting release in depleted coverts.

THE PROBLEMS OF GAME BIRD INTRODUCTION AND PROPAGATION

BACK in the days before hunting pressure had reached its present proportions, it wasn't necessary to know much about conservation and propagation. The pioneers thought our supply of natural resources inexhaustible, and acted accordingly. They couldn't kill enough game. There were the market hunters, and those who killed merely for the sport of the chase. The hunting in those days was wanton, wasteful, and the result was inevitable. Various species of game faced extinction. Something would have to be done about it!

Most Pennsylvania sportsmen know about John M. Phillips, of Pittsburgh, and the fight he and other far-sighted conservationists put up to get a Game Commission established in Pennsylvania. Most Pennsylvania sportsmen are aware of the fight the first Commission, with the able assistance of Dr. Joseph Kalbfus, its first administrative head, put up to conserve our disappearing game, of how they struggled against great odds, and finally won.

Among the many problems that faced these early Commissioners was that of replacing the badly depleted supply of game birds.

As early as 1904, Dr. Kalbfus realized that the stocking of game would be necessary to restore shooting in depleted areas. The next year a special appropriation of $6,000 was given to the Game Commission for this purpose, and approximately 3,700 quail were purchased from Alabama at a cost of $9.00 per dozen. These birds took to their new environment like a duck to water. They nested and hatched; some of them were reported to have hatched twice.

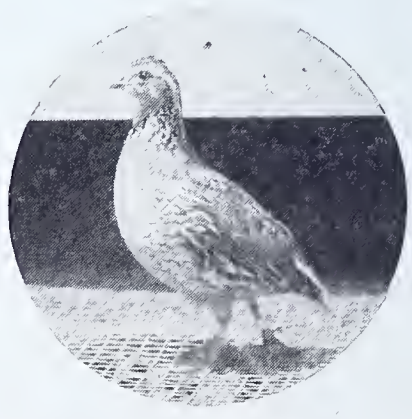
In those early days the Commission concerned itself mainly with the Pennsylvania natives—the wild turkey, ruffed grouse, and quail. Nobody paid much attention to the exotic immigrant, the ringneck pheasant, in spite of the fact that it had been listed and hunted as a game bird as early as 1902.

Around 1913 the cost of purchasing and shipping game birds from other states became so high that the Game Commission could not well afford it. They began to consider the possibility of propagating their own supply.

Other states had spent much money, time and effort trying to propagate wild birds, and had met with nothing but failure. And attempts to raise birds in captivity, though they had met with some degree of success, had proven that wild birds raised in captivity became as dependent as chickens and could not shift for themselves when released in the wild.

In the face of these facts the Commission began casting about for a place outside of the State from which it could purchase wild game birds, and in 1914 a representative of the Commission found quail in Mexico. Some of these quail lived at an altitude and temperature much the same as that of Pennsylvania. A number of birds were imported and released. The results were encouraging. The birds, hardy and apparently able to withstand the climate, were not migratory, and their increase was believed to be about equal to native quail.





While early experiments with imported quail, especially those from Mexico, proved fruitless, the artificial propagation of native stock was successful and a large State Game Farm is devoted entirely to raising these birds.

It was immediately decided to secure 10,000 or more Mexican quail, and an agent was sent to Tampico, Mexico, to make the necessary transactions connected with such purchase.

But with the first shipment, tragedy raised its ominous head. Although only a few birds died on the long trip from Mexico, an alarming number came to an untimely end shortly after their arrival.

The dead birds were sent to the Department of Animal Industry in Washington and the State Veterinary Department. Both reported that lesions found in the liver and intestines of the birds examined indicated the presence of a dreaded quail disease "Coccidiosis." The living birds were held in quarantine at the State Farm belonging to the Veterinary Bureau of the Pennsylvania Department of Agriculture near Clifton, Delaware County, and the agent was recalled from Mexico.

In the spring of 1917 the Commission bought 6,000 quail from Mexico, two-thirds of which died quickly. It was believed that the young birds had been shipped when they were too immature to stand the hardships of travel. Other factors which no doubt helped to cause the untimely deaths were the change in diet from the insects and green food of their native habitat to hard seeds and grain of a captivity ration, and the change of climate. Mexican quail, feathered for the semi-trophical conditions of their native home, could not stand the cold weather of March in Pennsylvania.

During the years following, dry weather conditions in Mexico often caused shipments of quail to be late and incomplete.

Because of the difficulties involved in securing these birds, and because the birds were not too well adapted to the Pennsylvania climate despite early optimism, the Game Commission stopped purchasing quail from Mexico after the 1932 shipment.

By 1916 the Commission began looking at the pheasant with an eye to its possibility as a Pennsylvania game bird. But they were skeptical. It was believed that the ringneck pheasant was a ground feeder and could not survive the severe winters. To disprove this theory and to learn more about the habits of this foreigner, Dr. Kalbfus bought 50 ringneck pheasant eggs from a man near Crooked River, N. J., and had them sent to a farm in Bradford County, where they were set under Rhode Island Red hens. Of the 50 eggs set, 46 hatched. Four of the little birds died quickly, and one by one others were lost until 28 remained. Of this number 8 escaped. But the experiment was not without its reward. The experimenters learned many valuable facts concerning the habits of the exotic immigrant.

And so the popularity of the ringneck pheasant increased a little, and the hope of the Game Commission increased, too, as many sportsmen became interested in the efforts of the Commission and attempted to raise ringnecks privately with some success. Ringnecks increased; the sportsmen hunted them. And the hunting strain was relieved on the native grouse.

One man who raised ringnecks in 1919 took the eggs out of a guinea hen's nest and substituted the ringneck eggs. The domestic fowl proceeded to hatch and rear them as she would her own little chicks. The results of this experiment were excellent. But tests with incubator hatching that year were unpromising.

Experiments with raising ringnecks continued with about the same results until 1927. That year the Commission was unable to secure enough to meet the demands of the sportsmen. So it pioneered a unique plan—that of rearing the birds on the various refuges throughout the State and paying the refuge keeper a bonus for bringing them to a suitable size for liberation. This was another definite step forward in the history of wildlife propagation. The ringnecks increased considerably under this system and the Commission decided to attempt the production of other small game, too.

In 1929 the Fisher State Game Farm comprising 328.2 acres and the Jordan State Game Farm of 324.9 acres were established for the propagation of ringneck pheasants. In addition to these two game farms, the Commission received titles to 937.8 acres of contiguous farm and forested land in Lack Township, Juniata County, for the rearing



"What's it all about?" thinks this ringneck youngster.

of wild turkeys. Three hundred thirty-one turkeys showing considerable wild traits and well marked were purchased and put in charge of the man who had raised them. In the fall of 1929 the majority of the birds were shipped for stocking purposes; the best birds—50 hens and 10 toms were held for breeders in 1930.

During the biennium 1929-1930 the Game Commission cooperated with the Rolling Rock Club near Ligonier in propagating ruffed grouse. Experiments proved that it could be done, but that the expenses involved made grouse-raising prohibitive.

The Commission also conducted some tests of its own with the grouse. However, attempts to raise this native Pennsylvanian in captivity were anything but encouraging. The birds were pugnacious towards each other, and a hen that could dominate a particular cock would have nothing to do with him. The grouse were always fighting among themselves for supremacy in the flock. The percentage of fertile eggs was low.

Thinking that the birds would perhaps do better in a wild habitat, the Commission established an area on State Game Lands in Elk County similar to that used for wild

(Continued on page 22)

Colony brooder houses for ringnecks on the Loyalsock State Game Farm near Montoursville, Lycoming County.





In GI waterproof ponchos two Virginia hunters test official army camp stove at Camp Lee, Va., and find it works in driving rain.

HUNTING A LA 1950

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By The Editor

G I Joe is going to have a lot of new and improved hunting and camping equipment when he starts roaming his favorite coverts again

CONFLICTING emotions one after another beset me whenever I think what will be in store for the hunter five years from now, or say after the peace is won. Let's look at his potential future from all the angles.

First of all, there is the matter of his transportation. If I've heard one, I've heard a thousand fellows say the first thing they want after the war is a jeep. Ask them what for and nine out of ten will say, "to go huntin' and fishin' in." And they'll do that very thing if Uncle Sam will sell them after the war.

And I've heard many others say, "Boy what a swell huntin' camp one of those quonset huts the Navy uses would make. Easily put together, warm and snug, it would be inexpensive compared with the cost of lumber, labor, etc. I'll wager dollars to doughnuts that many a hunting party that could never raise the funds to establish a permanent camp will be the proud possessors of one of the Navy's huts once Hitler and Hirohito have bowed to the inevitable.

Let's not overlook arms and ammunition, either. More than one GI is thinking in terms of a new type of rifle or shotgun for killing game, based on the effectiveness of the weapons they have been using. For example, they say, "Now wouldn't I like to have one of these back home in the deer woods." Personally I can't help feeling that the prewar sporting arms are more than adequate for all types of gunning we have in our country, but who knows what they will be like after the war is over. And there's another thing we must remember that a whale of a lot of fellows over-eager to renew the chase after several years absence from old familiar game coverts may forget even the killing potentialities of their own hunting weapons or that they are hunting



Through numerous hikes the sportsmen discovered that the light-weight pack-board distributed weight of load evenly.

rabbits, pheasants, grouse or deer instead of heinies or japrats and go blasting away at everything that moves. To taut nerves, not fully adjusted to the old peacetime environment, the snapping of a twig or a movement in the brush may very easily carry a man back to a foxhole or jungle outpost where a sound or movement may well have spelled death for him who hesitated. It can happen. It will happen unless we make sure that the returning GI's we hunt with are as sure of themselves as we hope they will be. It would be pathetic, would it not, for some battle-scarred veteran to meet his death at the hands of an over-zealous comrade while on his first hunting trip after the war.

Then there is the matter of the walkie-talkie. What a boon to the hunter who got lost in the woods, taking it for granted, of course, that the rest of the gang were so equipped too. I'll bet a silent deer drive would surprise the life cut of many a wily white-tail buck if both drivers and watchers were walkie-talkie equipped. Better than the noisy drives I've known all my life. It would be, "Frank speaking. Some just went out ahead, moving toward the watchers. Roger?" The answer comes back. "Roger." Naturally by prearranged strategy and placement everyone knows what position in the line everybody else has and can easily figure, watchers too, about where to look for what. Impossible? Not by a darn sight. An example of the use of the walkie-talkie in a Pennsylvania bear hunt is illustrated in the following item published recently in a Williamsport newspaper:

"Using a walkie-talkie radio, members of the Texas and Blockhouse Hunting Club from this vicinity killed a 150-pound bear on their first drive of the first day of bear season.

"Clifford Coleman, Williamsport businessman, shot the animal, and W. Herbert Poff, Williamsport merchant, and Harold Moltz, member of the State Game Commission, said the walkie-talkie enabled the 12 members of the drive to keep in touch with each other, and to move their lines up systematically."

Think of first aid, also. More than one unfortunate nimrod's life will have been saved from a careless gunning accident because the woods will be full of GI Joes who know their first aid. And after all is said and done there's a possibility maybe that Mr. Average-Home-Front-Hunter will be the one who is "shown up" when the absentees get back. Who knows but what my psycho-analysis a paragraph or so back may be "all wet" and it will be the home-comer who will lead the field both in careful hunting and in caring for injuries caused by careless shooting.



Looking over equipment that sportsmen can use to good advantage.

Here's a shot I'm not the least bit afraid of calling—clothes. The average lad home from whatever field of battle he participated in will know what's best to wear no matter what the elements—cold, hot, snow, rain—any old thing. And what one doesn't know the other will soon teach him. Betcha we'll have an all-round better equipped army of hunters from the standpoint of selecting what they should wear and when than we ever had before. Betcha we'll have more fellows in the field who can take care of themselves in *every* way than most us "old-timers." They'll even know how better to stalk wild animals than we do because most of their time has been spent trying to outsmart some pretty canny critters in habitats far more impenetrable than any we've ever seen. Sometimes I think we've "missed the boat" entirely when we go afield because we can't put ourselves in our quarry's shoes. We've got to think of what he would do if we were hunting him, and where to look for him and vice versa. And when you're fighting him on his own grounds that takes a lot of thinking if you want to live to tell the

(Continued on page 25)



Compact camp made entirely of GI materials is set up on banks of a small lake by the two sportsmen. One drives in tent pegs while the other rests in type of hammock used by troops in tropics. It has a water-repellent "roof" on top. A mosquito netting is attached to the edges of the roof and the sides of the hammock.



Snowy Owls are diurnal—as much at home in daylight as under the star-studded night sky.

INVASION FROM THE NORTH

By Jacob Bates Abbott

Illustrations by The Author

IT WAS mid-January in Chester County—the cold grey sky was like a zinc plate, against which the snowy branches were tooled-out strips of white outlining the etched blacks of the limbs and frosting the somber sprays of the dark pines. Snow flurries powdered the picture with scattered gusts of white. It was cold—so cold that the snow squeaked beneath your boots as you walked. Could I have afforded a winter in Florida I certainly would have been there. Yet here was a small flock of birds, who needed no tickets, but only wing-power to enjoy a southern winter, apparently quite indifferent to biting cold, frozen fields and stinging snow fragments. In fact, from their actions I would say they were enjoying it. It reminded me of part of a verse of a popular song of the late 1930's which suggested, ". . . Think of the birdies, they're not eatin', but they all are tweet-tweet-tweetin' . . .". Whether my little flock had been exercising their digestive organs or not, I was not sure, but they certainly were chattering energetically as they settled in a dense tangle of honeysuckle. The flurry of small beating wings scattered puffs of powdery snow from the vines and their high metallic notes made cheery conversation on the winter air and more than justified the song-writer's lyrics.

These hardy feathered adventurers were smaller than English Sparrows—and most of them seemed olive brown, but through my field glasses I picked out tiny spots of bright yellow on the lesser coverts or wing "elbows" and these bits of gold and their white-barred black wings proclaimed them to be goldfinches in their plain winter plumage. But, wait a minute, two or three of them look darker than the others and I caught a flash of dull crimson as one of these browner birds faced me squarely. My glasses showed a deep red spot just above the eyes, a crimson frown as it were, and I know I was looking at one of those rare wanderers from the north, a redpoll. Their winter appearance in Pennsylvania is most casual, usually in the northern tier of counties. They associate with the goldfinches whom they closely resemble in size, shape and actions. Unusual winter travellers have always interested me, for the bright migrants and temporary summer residents have fled South, from Virginia to Patagonia. The few common winter birds become as familiar as the faces in one's home or office and a stranger among them, particularly a voyager from the far north, has a sort of glamour not unlike that of a mink-coated blonde who mysteriously descends on the small town, considerably to the annoyance of the local belles. Let it be whispered that she, for some unknown reason, decided to leave Quebec, Montreal or Nome to pay this local visit, and her witchery has increased immeasurably. So with the feathered casuals from the frozen tundras and snow-choked northern spruce forests—what has impelled them to invade us, hundreds of miles to the south? Of course Pennsylvania is fortunate in having as local belles, all through the winter, the scarlet flashing cardinals (male belles, if you will) and few birds form a more startling contrast to a drifted snowbank or frosted branch. Most of the arctic immigrants are quietly toned in plumage. Perhaps it is their rovings so far from home, their unpredictable appearances and their relative abundance in certain cycles of years that gives them their mystery and interest. Thus was Lindbergh an object of wonder to the people of Paris as he dropped in on them that memorable morning in May, 1927, casually remarking that he had just flown over from America.

To return to the "why do they do it" question, scientists believe that the periods of winter abundance (roughly every five or six years) of the birds of prey, snowy owl, arctic horned owl, and goshawk, in the northern states, directly coincide with recurrent shortages of lemmings, arctic hares, and snowshoe rabbits, their natural winter menu. Disease apparently decimates these hordes of arctic rodents repeatedly, and those accustomed to dine on them must seek provender further south. Well, just the other day when I could get no butter in Haverford I travelled to Bryn Mawr after it and no hawk or owl was ever fiercer or keener in running down its prey.

The greatest snowy owl invasion occurred in the winter of 1926-27 when 2,363 records of these owls were made within the United States. Extraordinary occurrences of this big arctic bird include two shot in Bermuda in 1843, one shot in North Carolina in 1908, one killed in Georgia in 1931 and perhaps the most amazing of all, one taken in Austin, Texas, in the winter of 1876! More recently New York State alone reported 419 records, of which 291 were collected in the winter of 1941-42. Taxidermists reported that they had handled over 200 of the big white birds, for, of course, every gun was turned against them, since they are conspicuous, easy to hit and usually perch low on fence post, haystack or on the ground. So, the itching fingers of "sportsmen" were rewarded by a couple of hundred white carcasses. It is a waste of breath to tell gunners that the snowy owl's diet in his homeland is almost entirely beneficial; coastwise he takes ducks, usually eiders, scoters or goldeneyes. These owls are beautiful birds and look very large in flight. Usually seen along the coast, where they sit as if carved from marble on some rock, marshland stump or hay mound; there are, nevertheless, records from central and northern Pennsylvania.

Snowy owls are diurnal—as much at home

in daylight as under the star-studded night sky. They occur regularly in winter along the Massachusetts coast and as an example of their fearlessness of man, let me give an experience I had with one at Plum Island, near Newburyport, Massachusetts. My son, a classmate of his and I had come up from Cambridge to see snowy owls. We had seen three around the frozen Plum Island marshes and finally spied one perched on the ridgepole of a low shed in back of a farm house. I wanted to get a good view of the owl's flight positions, so we walked toward the shed, thinking the bird would flush. Would you believe it, the two boys stood under the roof and threw snowballs at that owl for several minutes before he condescended to take off! So you can imagine what rare game one would make for a man with a shotgun.

The snowy's wing spread is very wide and he appears longer-winged in flight than a great horned. Some of the males are very lightly marked, the females being more generally sprinkled and barred with sepia on the breast, wings, back and crown. It is a magnificent bird, deeply feathered to the talons, the steady beat of its powerful wings bearing it in ghostlike flight against the darkened sky.

The arctic horned owl, a very light, nearly white sub-species of Bubovirginianus, sometimes invades the more northern tier of states. This looks like, in fact is, a practically white great-horned owl. Usually more heavily marked than a snowy owl, the arctic horned can be readily identified by its prominent feathered ears. The snowy has no ear tufts. Its habits and call notes are those of our native great horned owl so dear to the hearts of bounty collectors.

The big slashing goshawk is not only a winter irregular, for some live the year round within the Commonwealth, nesting locally in the northern counties. Fiercest of the hawks, with an epicure's yen for ruffed grouse, this powerful bird, bigger than a red-shoulder, is the Attila of the north woods. Yet you have to admire them—no birds are fiercer in defense of their nest than a pair of goshawks—and the female is more deadly than the male. Streamlined from dark-barred slaty breast to long flaring black and gray striped tail, power is evident in every feathered muscle. Great depth of chest adds to the potency of the sturdy sinews which operate the wide short wings. Destructive of course, but also dauntless, without fear (one has been recorded which swooped through an open kitchen door, caught up a hen which had blindly rushed in to escape, whirled and swept out with his prey practically from under the farmer's feet; the latter was reaching for his shotgun but the goshawk was out of range with her prey when the gunner had loaded and reached the yard) and spirited in defense of its young. I hate to see the limp, grey-feathered corpses that arrive in shoe boxes for the $4.00 bounty. Still, the ruffed grouse is a swell bird and this is perhaps his most indomitable enemy. Yet for what are we preserving the ruffed grouse? Why, of course so that they may be killed by men instead of by goshawks. From the grouse's point of view the outlook must be a bit dreary.

Another owl of the winter marshes is the short-eared—a medium sized round-headed owl with a fluttery, moth-like flight. One will flush from the frozen rushes, from virtually under your feet and in a bounding, stiff-winged break, spiral upward until it is but a speck in the winter sky. They hunt the marshes regularly in daylight and are usually perched low on a willow stump, hummock or in the reeds, in wait for some unwary meadow mouse. Protected in the Commonwealth—and rightly. Their diet is entirely beneficial since their gastronomic preference lies in mice, shrews, rabbits, crickets, and grasshoppers. A bird of the north, they have been known to nest in Pennsylvania. I have seen them in winter, just outside Philadelphia's city limits, on the Hog Island slough, where, surrounded by abandoned Government factories, they course, harrier-like, back and forth over the icy bogs.



The Cardinal is with us all winter.

The real thrill for the winter bird watcher is furnished by small flocks of chunky, heavy-billed birds, marked in yellow, brown, white and black, which irregularly invade New Jersey and Pennsylvania back yards in mid-winter. They chirp and chatter much like English Sparrows, but are the rare Evening Grosbeaks that interested ornithologists will travel miles to see. They come to feeding trays and for the few days that they stay seem to be without shyness or fear. I know of a small flock three years ago in a New Jersey yard that was watched at intervals by whole platoons of a local bird society. They fed serenely on sunflower seeds and scratch feed while dozens of pairs of eyes and binocular lenses were focused upon them.

The most extraordinary invader that I know of was recorded a few years ago in Maine. In February, 1937, a Hepburn's Rosy Finch showed up there in someone's back yard in Gorham—and to make identity certain was harmlessly trapped, banded and photographed. Dr. Alfred Gross, the eminent Bowdoin ornithologist, made the identification. The bird remained for several weeks and many bird enthusiasts and scientists observed this rarity. Rarity? Yes, because this rosy finch lives in the mountains of Alaska and British Columbia and, although in winter it sometimes ventures as far east as southern Colorado—it had never before been recorded east of Minnesota. Yet here was one on the Atlantic coast, 3,000 miles from home!

This is not the entire list of interesting winter visitors. The big, dark American Roughlegs are always a sight to heighten bird lover's blood pressure. These big hawks, slightly larger than a red-tail, course across marshland and frozen sloughs. Their favorite habitat seems to be flat open country or the salt marshes of the sea coast. The barren fields and flat hills surrounding the Maiden Creek reservoir near Reading, is a favorite resort. I have seen them on the great expanse of marsh between Newark and Elizabeth, New Jersey, and along the frozen streams and river backwash at Essington in Delaware County. There is a very dark, almost entirely black, plumage, but the typical markings are blackish with feathered thighs cream, dotted with black and breast streaked with black and cream; the under body, flanks and under tail coverts are black. The dark tail has a fanned-out white splash between base and rim, bordered by a wide black band formed by the spread, jet-tipped tail feathers. The legs are feathered to the toes, like those of the golden eagle—a sure mark of distinction (if the birds are close at hand) between rough-legs and immature red-tailed hawks.

Flocks of pine siskins, little brown sparrow-like birds with a splash of gold in their wings, often wander down from the northern firs and spruces and feed through our Pennsylvania hemlocks, chiselling out seeds from the cones with their sharp conical bills.

Crows, bluejays, juncos, chickadees, nuthatches, downy and hairy woodpeckers, the flaming cardinals, we have with us all the winters. Keep on the lookout for the wandering strangers: Golden-crowned kinglets, those fluffy atoms of feathers; sleek-cedar waxwings, horned larks and snow-buntings sweeping over snow-swept, barren fields; perhaps an occasional flock of pine grosbeaks or crossbills settling in a sumac thicket or hemlock stand; a black-masked northern shrike, on his perch atop a blasted pine, silhouetted against the leaden sky. Best of all, keep food out for the birds—rustic trays offering scratch feed and Sunflower seeds and suet nailed to or hung from branches. These northern refugees will repay your trouble with their enthusiastic company and, I am sure, gratitude and will add sparkle and interest to many a day in the dead of winter when spring seems long and slow-a-comin'.



They are the rare Evening Grosbeaks which interested ornithologists will travel many miles to see.

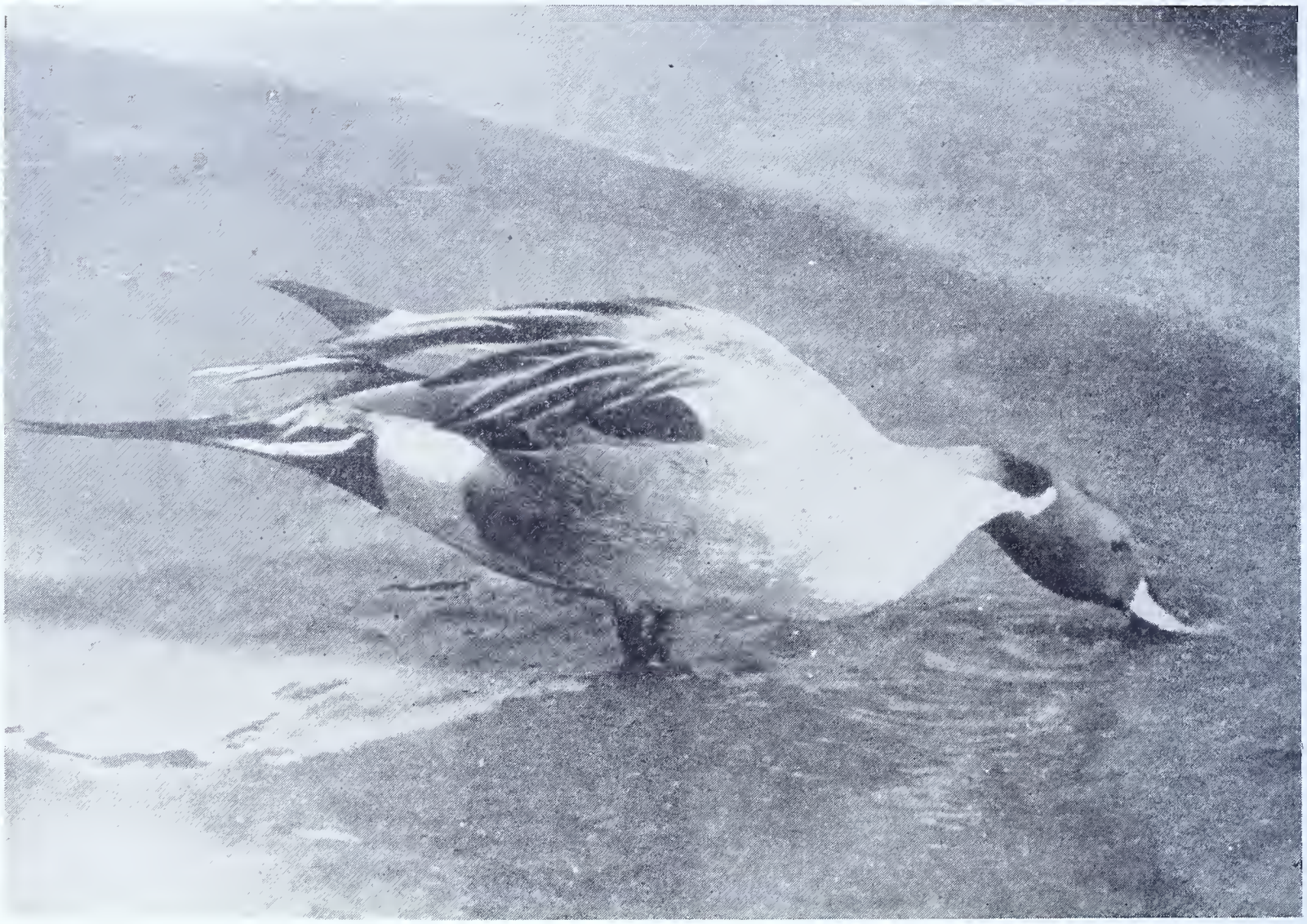


Photo U. S. Fish and Wildlife Service.

Pintail duck feeding. In the following little article you will find a mouth-watering recipe for cooking wild ducks. If the roasted bird tastes as good as the recipe sounds its worth a trial. File it away for future use.

LEAVES FROM A HUNGRY HUNTER'S NOTEBOOK

By Sherman Lee Pruitt

THE writer has, over a period of twenty-five years, followed the outdoor trails in many States including Pennsylvania and in that time I have had some wonderful game recipes given to me by sportsmen and farmers. I would like to pass them on to the readers of this publication.

Quail: I once dined at the gunning lodge of an aged ex-market hunter (he later reformed, happily) and he acted as Chef de Luxe that memorable evening. We had been out that cold November day eight tiresome hours and between us bagged six plump quail and two woodcocks. One act the old guide always performed stuck in my memory: He always drew his birds as soon as possible, claiming that method kept the game sweet and clean. He would stuff the cavity with clean, dry grass until the birds were used.

When we arrived back at the lodge, the old nimrod skinned our birds and split them down the center. After soaking them in briny cold water for two hours they were salted and peppered, rolled in flour and then fried in hot butter mixed with sweet breakfast bacon drippings. I'll remember the heavenly odor of those browning birds until my dying day.

Here's hoping other possessors of good wildlife recipes will pass them on. The more the merrier



Old thunder wings, the grouse, is just as good to eat as he is to hunt.

In fifteen minutes they were nut brown and the old guide set the rustic table. I put on my drooling bib. If I had eaten as much as I did that night in a city restaurant, I would have been put down as a seventh wonder, but there is no appetizer like old mother nature as any gunner well knows.

Rabbit: An aged and kindly farmer from York County, Pennsylvania gave me this grand recipe for cooking molly cottontail: "Old Man" Graham could hunt with the best of them and his performance with a cast iron skillet would put many high priced French chefs to shame. A wild cottontail cooked by this method will, I guarantee, be tender as a first kiss and just as easy to take.

First, spend one happy carefree day afield

in magic November. If you are a good enough shot and Lady Luck has smiled, you will have a brace of brown bunnies. Clean your rabbit as soon as possible, preferably just after it is shot. When you reach home, cut it up and soak it a few hours in cold, salted water. Remove and parboil it for fifteen minutes in bubbling water. If the bunny is an old residenter, parboil a little longer. I have seen some tough rabbits in my lean and hungry days. When you remove the carcass from the hot water dip the pieces in flour and fry slowly in a cast iron skillet in bacon or pork fat until they are well browned. Then, make a brown gravy, letting the rabbit simmer for an hour and adding in the meantime, my hungry friends, two tablespoons of clear vinegar to the gravy. It will, I promise, be tender and good enough for a king. The exact recipe can also be used to good advantage for old "bushytail", the squirrel.

Wild Duck: A famous guide from the Chesapeake marshes named Jim Sterling once showed me how to lead a duck. After shooting said duck he also showed me how to cook it. After plucking and drawing (give some kid a quarter a duck for this job)—you will save a lot of grief and the kid will be happy with his quarter. Soak over night in cold, salty water. After removing the birds in the morning, stuff each fowl with a whole sweet apple and then parboil for thirty minutes. When the thirty minutes are up, remove the apple from your ducks and discard, for much if not all the objectionable flavor will be absorbed by the apple. Place a *fresh* apple in the cavity of each bird then bake in a moderate oven for ninety minutes or until the birds are a rich nut brown. The odor will probably drive you crazy, especially if you missed breakfast as I often do.

While the fowl are baking, lay two strips of sweet thinly sliced breakfast bacon over the breasts. When the birds are done remove from the oven, and if you wish, for an added taste thrill, add a little lime or lemon juice to each bird. I was once a guest at a duck dinner at a sporting club and we all went without breakfast and lunch. Our ducks were served at eight P.M. and when our host yelled "Let's eat", I nearly got trampled in the ensuing stampede of ravenous hunters. A duck cooked this way will make you kiss your mother-in-law or vice versa. It should be served with cranberry sauce.

Pheasant: Old John Pheasant is hard to bag and when you have brought home your brace of birds you will feel proud of a day well spent. A large pheasant cock can be cooked in much the same manner as his cousin, the domestic chicken. "Ole Man" Reeves from Pennsylvania's Clinton County showed me a good method of doing these gaudy birds justice on the table. First after drawing and plucking, soak overnight in cold salted water. Remove in the morning and then stuff your bird with a mixture composed of chopped mushrooms (or oysters), bread, and poultry seasoning. Mix well then stuff the birds. Bake in a moderate oven for 85 minutes. Baste several times with bird's essence, serve with hot biscuits and good coffee. A meal such as this will make any tyro hunter a dyed-in-the-wool sportsman and veteran gunners will thank their lucky stars they were born hunters.



Photo by Leo A. Luttringer, Jr.

There is a lot of meat in the pot displayed by the above lucky nimrods whose pictures were taken after a few hours hunt in Lebanon County last season.

Grouse: Old thunder wings is acclaimed by millions as the king of them all and his crown is well deserved. He is just as good to eat as he is to hunt and if you are ever fortunate enough to bring home a brace of the royal ruffed grouse, try the following taste teaser: Pluck, draw and wipe birds. Save livers and make a stuffing composed of chopped livers, bread, and a teaspoon of country sausage. Stuff birds and bake in a moderate oven until they are well browned (about fifty minutes), garnish with lemon juice and serve with grape jelly.

Every hunting season in America millions go afield in pursuit of game birds and animals. Some arrive home with good bags and later enjoy the fruits of their hunting. Others through lack of knowledge in game cooking give their game away or it is discarded. In these days of rationing (or anytime for that matter), game should never be wasted. Learn to cook it and you will be justly proud of your culinary accomplish-

(Continued on page 32)



Photo by Allan Studholme.

While our author left venison off his list, we all know there is nothing like it when the cook knows his business. Game Protector Claude B. Kelsey, Port Allegany, tagging a lucky nimrod's deer.

ANALYSIS OF THE LATE FALL AND EARLY WINTER MUSKRAT POPULATION IN NORTHWESTERN PENNSYLVANIA

By William C. Grimm

DURING the trapping seasons of 1939, 1940, and 1941 a study was made of muskrats taken by trappers in Crawford, Mercer, and Erie Counties, Pennsylvania. Data taken on some 1,800 muskrats (*Ondatra zibethica zibethica L.*) is the basis of the present paper. This study was made by the writer as a part of the fur-bearing animal survey conducted under Pittman-Robertson Project 8-R for the Pennsylvania Game Commission. It is believed that a careful analysis of the data obtained should give certain reliable information regarding the composition of muskrat populations during the late fall and early winter months.

Sex Ratios in the Population

All of the data at hand indicates that there is a definite, though small, preponderance of male animals in the late fall and early winter population. Thus far observations have failed to indicate that weather conditions have much, if any, influence upon the ratios of sexes among trapped animals. There is no evidence that male animals are more active than females at this season and therefore more liable to be caught in traps; therefore it is believed that the ratios represent quite accurately the actual ratios in the population. Approximately six animals out of every ten taken by trappers are males. Dozier (1944) has shown that the preponderance of males over females is maintained throughout the winter and spring as well. During the first two weeks of March 1941, 56% of the animals trapped on the Blackwater Refuge in Maryland were males. During the same period in 1942 the percentage of males was 60%. This may tend to refute any supposition that seasonal activity of the sexes results in a greater take of males during the late fall and early winter. A comparison of the male-female ratios obtained in our region with those obtained in similar studies elsewhere is given in Table 1.

Age Composition of the Population

During the seasons of 1940 and of 1941 an effort was made to determine the relative age composition of the muskrat population. In this time 780 animals were carefully examined to determine whether they were old individuals (adults) or young of the previous breeding season (subadults). It was found that size alone was no certain indication of age. Considerable overlapping of both individual weights and measurements was noted (Table 4). Young individuals from the better habitats were often larger and heavier than old animals from relatively poorer habitats. Relative ages were determined by examination of the genital organs of each animal (Errington, 1939).

Approximately four-fifths (77%) of the fall and early winter population consists of the young, or subadult, animals (Table 2). By late November the pelage of the subadults is indistinguishable from that of adult animals. A very few typically kit-pelaged individuals are invariably taken by trappers during the month of December. Evidently such individuals represent litters of young which were born very late in the season. Data on weights and measurements of some of these December caught kits are presented in Table 3.

Sizes and Weights of Muskrats

It is quite evident that muskrats from the better habitats where desirable food plants are abundant average larger than those from the poorer habitats. Marsh dwelling animals were consistently larger and heavier than those from other types of habitat. Male animals average somewhat heavier than females. Adult males average larger than subadult males, and the adult females average considerably larger than subadult females at this season. There seems to be considerably more difference in the average weights of adult and subadult animals than there is in their total length (length from tip of nose to tip of tail). Comparative data on weights and measurements of adult and subadult muskrats from the northwestern part of Pennsylvania are presented in Table 4.

The average weight of all muskrats is a little under 2½ pounds (2.40 lbs.). The largest individual examined was an old female which weighed nearly four pounds (3.93 lbs.). An old male was examined which weighed 3.66 pounds. Individuals weighing between 3 and 3½ pounds are not unusual in the better marsh areas but they constitute a relatively small proportion of the total population. A relatively few young of the year, probably from early spring litters in the best types of habitat, may attain weights of from 2½ to 3 pounds by early December.

Distribution of the weights of 1,073 male muskrats is shown in Figure 1 and that of 774 females in Figure 2.

Summary

1. There is a definite preponderance of male animals in the fall-winter muskrat population.



Drawing by Earl Poole.

The muskrat is the most popular and abundant fur-bearing animal in Pennsylvania.

TABLE 1
SEX RATIOS OF MUSKRATS IN NORTHWESTERN PENNSYLVANIA COMPARED WITH THOSE RECORDED IN OTHER REGIONS

Locality	No. sexed	Season	Percentages		Authority
			Male	Female	
Pennsylvania	335	Dec. 1939	58.8	41.2	Grimm
"	675	Dec. 1940	58.7	41.3	"
"	834	Dec. 1941	57.0	43.0	"
Minnesota	155	Dec. 1941	54.8	45.2	McCann
Maryland	9,304	Jan.-Mar. 1941	56.4	44.0	Dozier & Allen
"	6,622	Jan.-Mar. 1942	58.0	42.0	Dozier
Ohio	247	1943	56.7	43.3	Gilfillan
Vermont	1,294	1940	65.4	34.6	Seamans
Iowa	584	1936-38	54.9	45.1	Errington

TABLE 2
AGE RATIOS OF MUSKRATS IN NORTHWESTERN PENNSYLVANIA COMPARED WITH THOSE RECORDED IN OTHER REGIONS

Locality	No. Examined	Season	Percentages		Authority
			Adult	Subadult	
Pennsylvania	250	Dec. 1940	18.0	82.0	Grimm
"	530	Dec. 1941	28.0	72.0	"
Illinois	1,147	1940-41	28.9	71.1	Baumgartner & Bellrose
Michigan	7,511	1940-41	35.3	64.7	"
Minnesota	567	Dec. 1941	27.4	72.6	McCann
Ohio	247	1943	20.0	80.0	Gilfillan

TABLE 3
SIZE AND WEIGHT DATA ON SOME DECEMBER-CAUGHT KIT MUSKRATS FROM NORTHWESTERN PENNSYLVANIA

Date	Sex	Weight in pounds	Length in inches
12-5-39	Male	1.04	16.57
12-8-39	Female	.98	15.82
12-20-39	Female	.93	16.81
12-10-40	Male	.91	18.00
12-5-41	Male	.94	15.43
12-5-41	Female	.83	14.95
12-12-41	Female	1.10	17.50
12-12-41	Male	1.00	16.77

2. There is a ratio of approximately four subadult muskrats to each adult in the fall-winter population.

3. Subadult muskrats cannot be accurately distinguished from adults on the basis of size and weight alone. Adult animals average somewhat heavier than do subadults but there is considerable overlapping of weights and measurements in the two classes.

4. The average weight of all fall and winter trapped muskrats from Northwestern Pennsylvania is 2.40 pounds.

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If you don't think beavers come big in Pennsylvania take a good look at the 65-pounder trapped in McKean County by Harold R. Lester (shown above) of Mt. Jewett. Incidentally, the meat is good eating, too. Try it.

TABLE 4
COMPARATIVE WEIGHTS AND MEASUREMENTS OF ADULT AND SUBADULT MUSKRATS IN DECEMBER POPULATIONS

	Adults		Subadults	
	Males (46)	Females (49)	Males (184)	Females (122)
Weight (pounds):				
Average	2.85	2.83	2.17	1.96
Extremes	2.18-3.66	2.27-3.93	1.18-3.00	1.54-2.88
Total Length (inches):				
Average	23.00	23.26	21.58	21.18
Extremes	20.94-25.00	21.42-25.47	17.95-24.00	18.19-23.66
Length of Tail (inches):				
Average	10.48	10.59	10.00	9.72
Length of Hind Foot (inches):				
Average	3.24	3.19	3.15	3.11

LETTERS TO THE EDITOR



"A squirrel has to eat something when there are no good nut trees around."

Joe Lohman of Waynesboro wrote as follows to a friend of his in the Service and we thought the communication interesting enough for our readers' consumption:

"I took a walk up Bisecker's Gap on Sunday morning. The mountain road was damp, the air cool and exhilarating. Just as I parked my car a grey squirrel ran up a hemlock. No doubt he just had his breakfast. I wondered what he ate so investigated. At the foot of the tree two green-capped toadstools were freshly nibbled. A squirrel has to eat something when there are no good nut trees around. I left it some pecans and a handful of sunflower seeds. I found out that the green toadstools are edible and very good when fried in butter.

"A distance up the road a groundhog ambled into view. He spied me at once and turned back up the mountain. He was so fat he wabbled. They certainly can't run very fast. I was surprised to see a groundhog in the mountain because I didn't think they lived there. They like to live near cornfields. Upon checking up with my mountain friend 'Musty' I learned that lots of them do. I would like to know what they eat up there; maybe mushrooms too. Some mushrooms had the tops chewed off with crumbs lying about the stem. I gathered one and upon examination found it to be a Death-Cup, or Destroying Angel. These are deadly poisonous to man but the small animals of the mountain eat them without harm.

"A mountain turtle is not such an interesting thing. There was one along the road taking nips out of the leaves of some weeds. Maybe he wasn't so well and was taking a tonic. When I returned he was eating a regular meal from some dried manure. Often these turtles are found in pools of mountain streams. I am concerned about them eating trout, which I understand is their bad habit. Three were taken from a pool in which were transplanted some six-inch speckled trout brought from the Vineyard Hollow Run. A turtle seems such a pokey thing to catch fish. I'll have to ask 'Musty' about this.

TONY GOES DUCK HUNTING

My name she's a Tony,
My friend's a name Joe
He's like to go hunting,
So, for some ducks a we go.

He's come a to my house,
Bout half a past four.
He's a screech a da brakes,
He's a pound a da door.

He's a scare a my dog,
He's a step on my cat.
He's a yell a Hey Tony,
A where are ya at?

I'm a coma right down,
I say to be quiet,
Ya make so much noise,
Ya wake a da town.

He say, Hey Tony,
Let's hava some fun.
Grab a da boots,
And I'll catch a da gun.

We go by the lake,
To shoot a some ducks,
She's much more fun,
Than chasing da bucks.

We go by the shore.
The wind, she's a cold.
I think I no stand it.
I'm maybe too old.

The ducks, she's a come,
One, two, three, a four.
I'm looka way out,
She's a come a some more.

So, Joe gets excite,
And begins a to shoot.
He's a miss a da duck,
And shoot a da coot.

He's swing all around,
Bang, bang, it's a dead.
He's shoot a one down,
Right on top of my head.

I say, "What's a matt?"
You craze lika a loon?
He say, "No, no, Tony,
She's a fall a too soon."

I'm get a so mad,
I'm a yell, and I shout,
But my friend he's a laff.
Then he's a slip and fall out.

I look at the sap,
He's a fall in the drink,
Then I laff a too,
So, what do you think.

I buy a new boots,
And I buy a da gun.
For this shooting bizness,
She's a lots of fun.

—Harry C. Kuhns, R. D. 1, Erie.



"Right there before my eyes lay the mate, perfectly blended with the background. I am losing my taste for huckleberries."

"If I had not stopped to take a rest a hornet's nest would not have been discovered. There it was, built under an overhanging rock, well protected from the elements. Already it was the size of a big cantaloupe. Hornets came and shot out like a streak. Now I judged where the hornet came from the other day that stung one of our picnic group on the arm. As a rule they will not sting unless molested. But this fellow came suddenly and stung. I think he took a pass at a fly and hit the background. Watch a hornet and you will see it swoop down on a fly like a dive bomber. Someone said that they use fly wings in building nests. A hornet sting makes it tough going, especially without dope to apply. A hunk of ice tied on with a handkerchief for an hour certainly cleared this sting. The relief was almost immediate.

"A blacksnake and I crossed trails. It was the first one I had seen in five years; not since I had whipped one with my fishing rod along Tumbling Run. We stared at each other for fully a minute. The thought occurred to me that orchardists like blacksnakes around to kill mice. I should let it go. On second thought if Ireland can do without snakes, that's good enough for me. I resolved to kill all snakes. A twenty-two shell loaded with bird shot did the trick neatly to this one. They have some long tail, tapering to a point like a toothpick. Snakes were now on my mind. I was thinking what I would do to a rattler should one pop up. At that instant a ruffed grouse suddenly flushed not over two yards from me. I nearly jumped out of my shoes. What a weapon they have for getting away before one can recover his senses.

"My destination was a certain huckleberry bush under which a copperhead was killed exactly one week ago. There may be a mate. I understand a second one is close around when one is killed. One hears so much; but then 'Musty' said so, and I relied on that some. I reached the spot and sure enough there was the same bush as innocent as ever. Some nice blueberries, too. I looked carefully but no snakes. I

poked in with my gun barrel. A faint rustle, probably a dried leaf hanging on a low limb. No snake. I swung the barrel through the bush; all was quiet. The growth is not heavy, surely no snake here. I decided to eat a few berries. However, I pushed aside the bush once more and right there before my eyes lay the mate, perfectly blended with the background. I am losing my taste for huckleberries. Some friends from Old Forge bottom came by as I was examining the dead copperhead. They were on their way over to Sandy Ridge to pick huckleberries."—Joe.

"Following is an item I clipped from the *Cherokee Scout,* Murphy, N. C. (Cherokee County), in regard to bear and boar hunts (Russian boar), which is self-explanatory.

"It may show our sportsmen what they can expect if they ever permit the Federal Government to interfere with their rights as citizens of the Keystone State in so far as hunting and fishing privileges are concerned.

"Fourteen bear and boar hunts are scheduled for the Santeetlah N. C. and U. S. Cooperative Wildlife Management Area on the Nantahala National Forest in Graham County. The areas to be hunted are as follows:

"Unit No. 1—Big Santeetlah Drainage.

"Unit No. 2—Little Santeetlah and Deep Creek Drainage.

"Unit No. 3—Slick Rock, Bear and Barkers Creeks.

"Hunting will be permitted for two-day periods as follows:

"Hunt 1—Unit 1—October 16-17.
"Hunt 2—Unit 3—October 23-24.
"Hunt 3—Unit 2—October 27-28.
"Hunt 4—Unit 1—November 1-2.
"Hunt 5—Unit 3—November 6-7.
"Hunt 6—Unit 2—November 10-11.
"Hunt 7—Unit 1—November 14-15.
"Hunt 8—Unit 3—November 17-18.
"Hunt 9—Unit 2—November 21-22.
"Hunt 10—Unit 1—November 24-25.
"Hunt 11—Unit 3—November 28-29.
"Hunt 12—Unit 2—December 1-2.
"Hunt 13—Unit 1—December 5-6.
"Hunt 14—Unit 3—December 8-9.

"Checking Stations:

"Unit 2 and 1: Game Protectors Station near Tapoco.

"Unit 3: Game Protectors Station on Santeetlah Creek.

"Each person participating in the hunt may kill one bear and one boar. No other wildlife of any description will be hunted or molested in any manner. Hunters will be expected to keep dogs from running deer.

"Applications will be received only from persons who possess bona fide bear or boar dogs or who are in position to obtain such animals.

"Successful applicants will be determined through an impartial *public drawing* to be held in *Asheville* by the Asheville Chamber of Commerce. This drawing will be designed to select *fourteen applicants and five alternates, there being a separate drawing for each unit* depending on the wishes of the applicants as expressed in their application. If *less* than *five of the fourteen* successful applicants are legal *residents* of *Graham County,* the drawing will continue until five are obtained.

"A successful applicant will be permitted to invite not more than twenty-four persons to accompany him in his hunt. All persons, including the applicant, must, however, possess a valid North Carolina hunting license.

"A successful applicant may take with him not more than 10 dogs.

"All firearms except rifles using rimfire cartridges, shotguns smaller than 16 gauge, and side arms may be used. Shotgun ammunition will be limited to the solid-load type.

"Each applicant must submit with his application a cashier's check or money order in the amount of Fifty Dollars ($50) which will be returned if he is not chosen in the public drawing. Applications and fee must be received by September 30th.

"The above fees will be made payable to J. H. Longshore, Agent, N. C. Division of Game and Inland Fisheries, 28 Law Building, Asheville, N. C., to be placed in a cooperative deposit in accordance with the provisions of the Wildlife Cooperative Agreement between the State of North Carolina and the U. S. Forest Service."

"There is some griping about the management and other matters concerning the conservation set-up in our state, but I wonder how those fellows would feel if they had to buck competition from every state in the Union in a gamble to garner one permit out of fourteen and also own and feed a pack of bear hounds in order to go bear hunting. That would mean a chance of possibly one in one or ten thousand of getting a permit after throwing considerable money into a pack of hounds, along with all the trouble, to say nothing of the howling and fighting of the pack. If they ever heard the Lobos up at Kane howl they would have an idea what it is like to have a pack of bear hounds in the back yard for twelve months of the year.

"It is high time Pennsylvania residents with nimrod desires quit their fault-finding and begin to appreciate what they have, and help the Commission and its personnel carry out a real conservation program, not only for ourselves but for our sons and brothers whom we expect and pray will be coming back before many months to double the pleasure and recreation we enjoy in Penn's woods.

"Any citizen of our state who is mentally fit and has the proper firearms and a two dollar license can go bear hunting in season, without any red tape or public drawing contest.

"Every sportsman in the State should realize what the provisions in the flood control bill, which is to come up in Congress, really mean to us. Flood control may be, and probably is, all right; but the bill should definitely stop at that without any further implications or loopholes.

"I want you to turn the clipping over to the editor of the GAME NEWS. I think it will make a few of our sportsmen realize just what they have at home.

"I was raised in Cherokee County, North Carolina, and have hunted and fished in Graham County and in some of the territory mentioned in the clipping. I know most of the areas covered by the hunts mentioned. It is rugged mountain country and hunting without dogs would be like hunting for a needle in a haystack. However, I still like our set-up in Pennsylvania much better. It conforms more to the real meaning of Democracy. When I hunted in Cherokee and Graham Counties forty to forty-five years ago there were no regulations of any kind. There were millions of live chestnut trees, all the chestnuts one cared to pick up, and squirrels—and turkeys galore. I had lots of fun chasing wild razor-back hogs, usually with any half-breed English Shepherd. If you think it isn't exciting, try it some time.

"Those were the days when I learned how

(Continued on page 30)



We are indebted to District Forester M. S. Harding of Clarion for this and the opposite photo. Above is Ranger Thos. B. Cook, Jr., with a 200-pounder taken near Cook Forest first day last season.



Eric Paddock with a 275-pounder (dressed) taken on Tom's Run, Clarion County, near Cook Forest Park, also first day of the 1944 season.





Rev. R. J. Wolfe, Harrisburg, front, and Rev. J. R. Hauser, Williamsport, rear, and the buck the former bagged in Lycoming County the past season.

PICTORIAL



A splendid 10-point killed in Potter County on Dec. 7, 1942, by Chief Deputy Sheriff Carl H. Butler, Coudersport.



Frank R. Miller of Scranton sent in the above photo. Sure is a nice buck.



Gene Adams, Mercer, with a 165-pounder killed in Forest County.



Fred Stoll, Taxidermist, photographed this partly albino ringneck killed by Sam McCulloug, Germantown, Philadelphia, in Bucks County last season.

PICTORIAL

If you recognize an uncaptioned photo please identify it. Some persons send them in with their game-kill reports but fail to write their names and addresses or any descriptive information on the back. Thus if they become detached while handling the reports there is no way of determining the owner. Please write or type the necessary information on a slip of paper and paste it on the back of your photos. Thank you.



Photo by Ray Scott.

Stan Seiber, Chet Lauver, Ray Scott and John Leister enjoyed a good day's sport in Juniata County, judging from the number of bunnies they are displaying.





Larksville police officers Stanley Perkanski and Gus Snyder with two Canadian honkers shot by Perkanski on Harvey's Lake.



Charles Zerby, Jr., 17 year old Lykens youth, with a nice 4-point bagged on the Broad Mountain last season. Photo by Mrs. Donald Reitenbach.



★ ★ ★ CURRENT TOPICS ★ ★ ★

TRAP MANY RABBITS

Peter Rabbit is clearing out of Mr. McGregor's garden!

The Commission is seeing to it, through its game trapping and transfer program, that Peter and his kin are removed from Victory garden areas. In cooperation with the Victory Garden Program of the State Council of Defense, every effort is being made to remove the possibility of rabbit damage so that the Victory Garden Program might be more successful. The animals are also removed from city parks, watersheds, and other areas where rabbits are destructive, and taken to sections where they will stand a chance of doing their bit for the war effort next Fall by furnishing tasty dinners for lucky hunters, thus saving money and ration points.

Because of cold weather, snow and lack of natural food, rabbits are causing damage to certain trees and shrubs. But these very conditions that make the bunnies more destructive are extremely helpful to the authorized trapper.

The transfer program is bringing results but more agents are need in some towns and cities. Last year's record was 33,083. This year the Commission hopes to raise it to 50,000.

The Game Commission pays $.50 each to its special agents for rabbits trapped and turned over to a Game Protector. Anyone can help in this worthy project. Consult your local Game Protector for further details.

COL. BIDDLE CITED

In a letter just received from Colonel Nicholas Biddle, member of the Commission from Bethayres, he tells us, "I was recently awarded the Legion of Merit for the work I did as Inspector General in Britain." Colonel Biddle, who has been in France since the latter part of August in charge of very important administrative duties there, is temporarily back in this country on special mission. His new address is: Deputy Port Commander, Hq. 5th Major Port, APO 517, c/o Postmaster, New York, N. Y.

IN MEMORIUM



A. L. Budd

The Game Commission and his many sportsmen friends were shocked to learn of the death of Mr. A. L. (Al) Budd, of Troy, who succumbed to a stroke on December 16.

Mr. Budd was 78 years old and was often referred to as the dean of sportsmen of Bradford County.

He began his services with the Game Commission as a Traveling Game Protector on November 1, 1919, and was appointed Chief, Bureau of Protection on July 16, 1926, a position he held until he retired January 15, 1933.



Photo by M. E. Sherman.

Field officers of the Commission have been helping to control predators where they have become too abundant locally. Above is Game Protector W. J. Carpenter, Mt. Jewett, with a nice catch of 34 foxes.

FEDERATION MEETING

The Pennsylvania Federation of Sportsmen's Clubs will hold its annual meeting Saturday, February 17, 1945 in the Forum of the Education Building, Harrisburg, Pa., starting at 9:30 A.M. The Board of Directors sitting as a permanent Resolutions Committee will meet the morning of the same day in a conference room in the Department of Public Instruction, to go over the Resolutions presented to the Conference. This meeting is not open to the general public; but anybody having any interest in any particular Resolution will be granted the privilege of speaking on the Resolution before the Board of Directors.

LOST, STRAYED OR STOLEN

On Saturday morning, December 2, O. C. Wagner, Port Allegany, missed his setter. The animal is white with small black ticks, has one black and one white ear and a white eye, called a Watch Eye. The animal weighs between 50 and 60 pounds, is 10 years old, and is very hard of hearing. A reward of $25 will be given for its return. No questions will be asked.

About one year ago the Mohnton Fish and Game Protective Association decided that some special inducement should be offered to create interest in the control of predators, especially foxes and weasels. To this end the club offered $2.00 for each fox and 50c for each weasel destroyed in Cumru or Brecknock Townships. To date the association has paid out bounties on 23 foxes and 13 weasels.

FISHING LICENSES OUT

We have been advised by the Board of Fish Commissioners that all County Treasurers have had the resident fishing licenses and buttons for the last two weeks. In other words, any person going to the office of the County Treasurer can secure a resident fishing license for 1945. It will be some little time before all the agents are supplied, but the majority will also have them early in January.

Non-resident and 3-day tourist licenses will be sent out sometime after the first of the year.

NEW POSTERS AVAILABLE

The Game Commission recently had a new series of six colored educational posters printed concerning various phases of wildlife conservation. They were drawn by Jacob Bates Abbott, the Commission's staff artist, and are especially adaptable to use in schools and by youth organizations such as Boy Scouts, Farm Youth groups, etc. Teachers, Scout Leaders, Leaders of 4-H Clubs, Future Farmers of America—in fact any groups interested in the conservation of the natural resources may request these placards, but none will be furnished individual members of any association or group. Sportsmen's organizations, especially those which have club rooms, have been encouraged to write for a set. General outdoor distribution of the posters will be made by field officers of the Commission.

HUNTING SAFE COMPARATIVELY SPEAKING

Recently the Travelers Insurance Company published several analytical tables covering claims made on the company in 1943 as the result of accidents. One table divided the causes into the broad general groups shown in this slide:

TABLE "A"

TRAVELERS INSURANCE COMPANY

Accident Claims

Accidents resulting from causes to which all men are exposed without regard to their employment for which the Travelers paid claims in 1943.

1. At Home (Inside)	25.79%
2. At Home (Outside)	18.56%
3. Pedestrians	17.32%
4. SPORTS AND RECREATION	17.05%
5. Automobiles	12.28%
6. Travel	3.52%
Miscellaneous	5.48%
	100.00%

It will be noted that among the Travelers 1943 accident claims, sports and recreation stood fourth in this group of seven with an accident percentage of 17.05%. Now let us examine information from the same source, which shows the position of hunting in comparison with other forms of recreation within the group:

TABLE "B"

TRAVELERS INSURANCE COMPANY

Accident Claims

Sports and Recreation Accidents 1943.

Activity	*Claims*
1. In Country or Woods	361
2. Horseback Riding	270
3. Baseball	256
4. Football	248
5. Bicycle	246
6. Winter Sports	219
7. Bathing and Swimming	202
8. Golf	178
9. Basketball	157
10. Athletic Games	156
11. HUNTING	140
Other Classifications*	1,103
TOTAL	3,536

* Boating and Canoeing; Bowling; Tennis and Squash; Skating; Scuffling and Wrestling; Gymnasium; Fishing; at Theatres, Churches and Concerts; at Parks, Picnics and Outings; Dancing; Billiards and Pool; Boxing; Miscellaneous.

You will note that accidents in country or woods (exclusive of specifically named activities) were responsible for 361 accidents. Horseback riding was second with 270 accidents. Baseball was third with 256; football was fourth with 248; bicycling was fifth with 246; winter sports sixth with 219; bathing and swimming seventh with 202; golf eighth with 178; basketball ninth with 157; athletic games tenth with 156 and hunting eleventh with 140, or only 4% of the 3,536 accident claims in the sports and recreational group.

Carrying this analysis a step further, we find that hunting was responsible in 1943 for less than 0.68% of the Travelers' 1943 accident claims, as against 16.37% for other forms of sport and recreation.

The Institute's Safety Activities

The enviable safety record achieved by the users of firearms has not been accidental. It has been the result of careful planning, persistent education and intelligent cooperation by the National Safety Council, the Boy Scouts, State Game Departments and numerous others, with whom the Sporting Arms and Ammunition Manufacturers' Institute has collaborated since it was organized in 1926.

KNOW THEM BETTER



Randolph H. Thompson

Mr. Thompson hardly needs an introduction to most of our readers and certainly not to the majority of Keystone sportsmen. He has been traveling from one part of the State to the other ever since he began lecturing and showing motion pictures for the Commission back in December, 1932.

Randolph is a Clinton Countian by birth. He graduated from Lamar Township High School, Lock Haven State Teachers College, and received a B. S. in Forestry at Penn State.

At one time he was Technical Assistant in the U. S. Forest Service, Colorado National Forests Section. Later he engaged in private lumbering operations and planing mill business at Lock Haven, from 1916 to 1932, when he came to Harrisburg to serve as Assistant Planning Engineer for the Greater Pennsylvania Council.

Mr. Thompson is married and has two sons. His hobby is horticulture, though he is an ardent and seasoned hunter and fisherman.

WHAT IS BUCKSHOT?

Sometime ago one of our readers asked for the definition of buckshot and we passed it on to Bob Nichols, Editor of the Arms and Ammunition Department of *Field and Stream* magazine, who answered as follows: "When your friend asked for the 'history' of buckshot, there I'm afraid he has me. Buckshot, of one sort or another, goes back a long way—probably even before the day of the matchlock blunderbuss. Anything that could be loaded down the muzzle, in the days of the smooth-bore—before rifling—even slugs of odd sizes, were put in the gun to increase the chance of hitting an enemy. I ran an article in the Arms and Ammunition Department in *Field and Stream* for October 1942 entitled 'The Shotgun in Defense', it won't give him what he is asking for, but maybe it will fill in somewhere along the line.

"Modern buckshot comes in seven sizes—the largest being 000 or .36 calibre, as you say. Next is 00 or .34 calibre, then on down to No. 0 or .32 calibre, No. 1 or .30 calibre, No. 2 or .27 calibre, No. 3 or .25 calibre and No. 4 or .24 calibre. These sizes used to be called 'Eastern' sizes—then there were other sizes which were referred to as 'Western' sizes. The latter have been abandoned by our loading companies."



Photo by Lindsey Griffin.

The above scene of a waiting line of Harrisburg nimrods may be oft repeated between now and next hunting season. Chairman Robertson of the Committee on Wildlife Resources in Congress has informed all state game departments that production of shotgun shells and rifle cartridges for civilian use has been terminated, and that present indications are that no more will be produced before the summer of 1945, and then only if Germany has been defeated. According to WPB figures the total production last year was approximately 600 million shotgun shells, 100 million more than it was originally planned to produce.



NOTES FROM THE FIELD



"While trapping foxes in this section, I caught a very large skunk in one of my better sets. As I approached the trap I noticed that the skunk had a very small neck compared to the size of its body. I got a little closer—yes, too close—and found that the skunk was wearing a glass collar. It was the mouth of a small glass jar. The skunk must have picked it up when it was quite small as the band was much smaller than the head."—Game Protector Paul L. Failor, Mt. Pocono.



"On November 28, while in the Goulds-boro section I ran into a rather unusual happening. While checking a small swamp for fresh bear tracks, I saw where bruin had entered the swamp during the night. From all indications the animal was badly wounded as it appeared to have been dragging its rear quarters. I followed the track in the thick laurel for some distance expecting to find a large dead bear, but to my surprise I found a dead cub. The cub had been shot about one-half mile from the swamp and that night the mother bear pulled the little one back to what was apparently going to have been her den for the winter."—Game Protector Richard W. Orr, Wilkes-Barre.

"Some bear hunters reported seeing a flock of seven wild turkeys in the vicinity of Hearts Content. I have been unable to locate them but it is possible that the hunters were right because turkeys have been seen near Tionesta Dam and Kellettsville.

"The bear kill in this area was very light. Most of the animals were small. I saw two that weighed about two hundred but the rest averaged about one hundred twenty pounds.

"A farmer near Spring Creek shot two Cooper's hawks in the act of killing some of his chickens."—Game Protector George H. Burdick, Tidioute.

"In talking with the landowners I learned that they did not have the trouble with the hunters that they had before the farm-game project was established. All are well satisfied with the set-up.

"The hunters said there were more ring-necks, but they were hard to hit and a little harder to find after the first day. All the gunners were very cooperative in showing their licenses. One man said he was checked three times during the season.

"The game bag was average."—Temporary Deputy Protector Alex T. Pearson, Rochester.

"The turkey season closed with a very good supply left over for breeding stock. Very few turkeys were killed in the heavily wooded sections of the county. I know of two large flocks on the game lands that only had two birds shot from them. Near the end of the season I observed eight nice turkeys on another game lands. Had reports of other large flocks with only two or three birds shot out. One flock of 42 birds was seen in a farmer's field the end of the season."—Game Protector Clyde W. Decker, Clearfield.

"Thus far (December 3) the kill of deer has been light in this locality. There are plenty of reports of deer being seen, but with only a few hunters out the kill is kept down.

"It is expected that a change of weather will bring out more hunters, however. Most of the hunters from a distance state that they have only a short time to hunt this year.

"There is an unusual number of nice healthy turkeys left over for seed and with a favorable winter the timber should be well filled with them next year.

"A bear weighing (hog dressed) 398 pounds was killed a short distance from Philipsburg on the first day of the season. This bear had been coming to an apple orchard all Fall. The animal's teeth were in bad condition, which probably accounts for its spending so much time at the orchard."—Game Protector Elmer Pilling, Philipsburg.

"I found a large house cat inside an open shed at a recently abandoned farm and a big rabbit sitting against a maple tree within twenty feet of the shed and no cover around him. I could not figure why the cat was missing a rabbit in the open like that.

"Mr. Moyer, who had been our only trapper in this section when no one else knew how to trap them, has admitted that foxes are not so easy to find. Two men who trapped for the first time this year caught fifteen grey foxes between them and I could have trapped that area very easily. Weasels have been scarce in my woods but I will watch for them and might find some later. I find that my fox pelts were very poor compared with some other officers have taken."—Game Protector Ralph H. Ewing, Polk.

"The kill of small game was light in this section. Rabbits and squirrels were fairly abundant; grouse and quail were scarce.

"Deer are again becoming quite plentiful in the South Mountain. The outlook for the buck season is good."—Game Protector J. R. Spahr, Gardners.

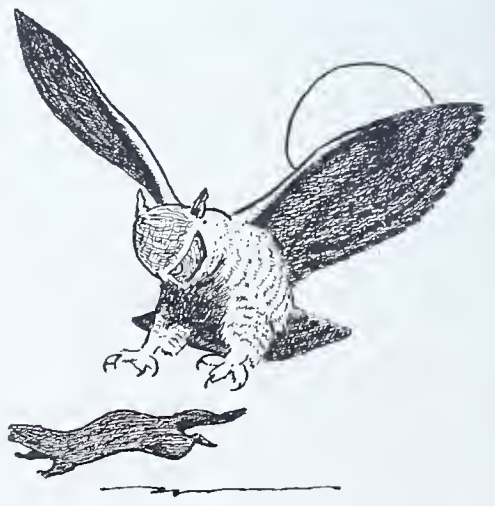
"Small game season closes once again with a nice supply of turkeys left to repopulate the range. The birds had the hunters at a disadvantage due to not scratching. They seemed to roam over quite an extensive area, due to scarcity of feed. Buck deer seen by small game hunters nearly all seem to have very nice sets of antlers. As many as four together have been reported to me, each buck having a nice set of horns."—Game Protector Ross G. Metz, Petersburg.

"I had reports of 7 foxes killed the first day of the small game season and found all hunters with a nice lot of game and it was all in good condition. All hunting started to drop off after the first few days.

"Eleven deer that I know about were killed this month by automobile and train."—Wm. G. Matthews, Rector.

"On October 17th a Great Horned Owl was presented for bounty. I examined the contents of its stomach and found it to contain the front feet, bones, bits of hair and hide of a large mink.

"October 19th about one mile below Headquarters I observed a doe and her fawn. The fawn was, in my opinion, not more than ten or twelve days old. This fawn has been observed several times since by other persons and all stated that it looked like a fawn would look in June."—Game Protector Philip S. Sloan, Mehoopany.



"A few years ago three whistling swans were received at the refuge. They had been illegally shot and crippled by hunters along the Susquehanna River and were sent to Pymatuning as an added attraction to sightseers. These birds were taken to a local veterinarian and pinioned so they would stay in the area. The veterinarian said they were all of the same sex but he was not sure whether they were males or females. It was doubtful if any of these birds would produce young, as swans are supposed to mate for life, and if a mate is lost the remaining bird will not remate. One of these swans was killed by a train and another shot by a hunter. The remaining bird stayed at the spillway all winter with the ducks and geese and went into the remote section of the refuge as soon as the ice went out in the spring. However this fall *she* appeared with two immature swans following her around. Now that the lake is frozen over again the old swan has come in to the spillway with her youngsters.

"I am not positive that this swan produced these young birds as they might have gotten tired during the migrating flight and decided it was easier to stay here for the winter. But it looks very much as though this swan was mated by a migrant in the spring and she nested and incubated and reared two young. If that is the case she has not held up the high tradition that swans are supposed to have in regards to family ties."—Game Protector Raymond Sickles, Linesville.

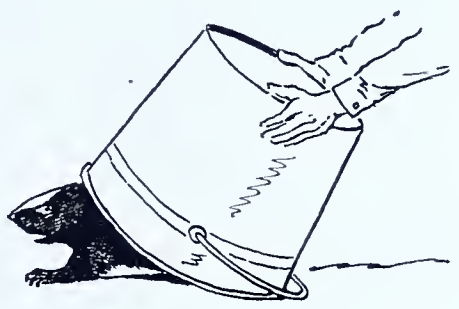
"About two weeks ago while in the Plaingrove District on the Grimm Farm, I noticed a ringneck cock coming through some corn which had been cut. What looked like a flock of young ringnecks were following him. I thought it rather late for such small birds, but when they crossed the road ahead of me I saw that it was a flock of bobwhite quail with him. They were all around him like a flock of chicks around an old hen. They went down through another field together. From the actions of the group, I surmised that they must have been staying together right along."—Game Protector Frank L. Coen, New Castle.

"While patrolling in Warton Township, I recently located a full grown chestnut tree which bore an abundant crop of chestnuts this fall. The tree was approximately 25 feet tall and appeared to be in a healthy condition except for a few limbs in the extreme top which had died years ago. From all indications the squirrels had made their appearance before I located the tree."—Game Protector Lester E. Shaeffer, Uniontown.

"While patrolling a Farm Game Project, I checked 18 non-resident hunters. I asked each hunter how he learned about the project. Answers were: Some hunted here years ago, some were originally from Pennsylvania, and all of them had read about it in PENNSYLVANIA GAME NEWS."—Game Protector Martin Gusick, Slatington.

"On November 29 I picked up a nice eight point buck on State Game Lands No. 51 which had been killed by another buck. The deer had a number of scars from the horns of the other buck, and the area in which the fight took place was entirely denuded of all vegetation."—Game Protector Lester E. Sheaffer, Uniontown.

"I am having a lot of new experiences in this game of fox-trapping, such as putting a bucket over a skunk to release it. The bucket is fine for carrying bait, scent, etc., as it keeps the man scent off of it.



"I also find that raccoon object to being released without an argument. The forked stick should be heavy, and leather gloves help.

"If you have a good fox set, don't destroy it when you catch a fox. Open up the bait hole and reset the trap. I have 3 foxes from one set and 2 each from a couple of others. A skunk, if left near a trap, will attract foxes. Try it.

"The season got off to a good start on the first. Lots of hunters were out and everyone had good luck with the bunnies. Late shooting seems to be the most prevailing violation in this area at present. Also, we still have the hunters who shoot at men for squirrels, rabbits, grouse, etc. as well as that intellectual fellow who rests the muzzle of the blunderbus on his toe while playing with the trigger and always drags the old gal through the fence muzzle first. They will keep 'em loaded in cars, and it looks as if the doctors and undertakers should have a prosperous year. I expect to take a chance on putting my dog in the woods after the first few barrages are over, so will let you know later what has escaped the holocaust, debacle or whatever you want to call it."—Game Protector R. P. Schmid, Slippery Rock.



"Rabbits and grouse were very scarce in this section. In some sections squirrels were plentiful while in others few were seen. The hunters were rather pleased at the number of turkeys that were seen. There were few turkeys shot, but it wasn't from the lack of trying.

"The weather was very unfavorable for bear hunting. There were a few bears killed, but the number was small in comparison with the number reported a few weeks before season."—Game Protector George E. Sprankle, Emporium.

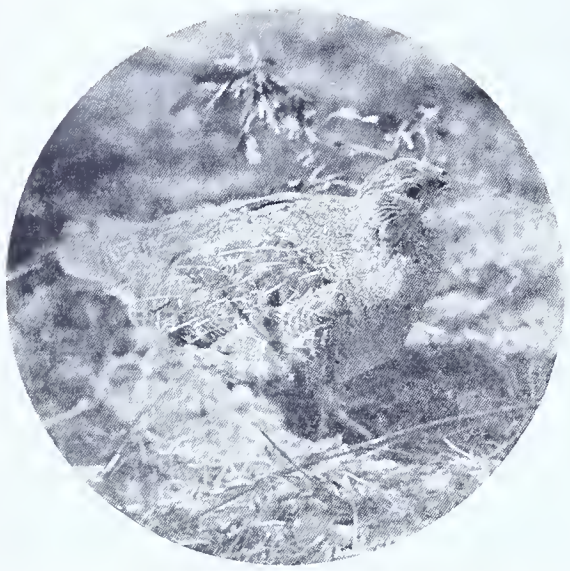
"On December 1, while checking hunters of the Winchester hunting camp in Clifton Township, Lackawanna County, one of its members, Leo (Cobby) Kafchinski, 1530 South Irving Avenue, Scranton, showed me a very nice male red fox. He also told me the following experience: He states that while on stand waiting for a nice buck deer to show up, he noticed a red fox sneaking along. All at once the animal pounced on something in the deep snow, and came up with a mouthful of ruffed grouse. One well-placed shot and the fox almost lost its head, but it still hung on to the mouthful of grouse. Cobby then went to pick up the killer and noticed that the fine game bird had some life in it. He pried open the fox's jaws. To his great surprise, the bird took wing and flew away seemingly unhurt, thanks to a friend."—Game Protector Peter J. Zikosky, Minooka.

"On November 12 I observed an unusually large buck with a heavy set of antlers feeding in an upgrown field under an apple tree. I took particular notice of this deer because of its size and old gray face. Again on November 16 I observed the same buck in exactly the same spot, but minus one antler. There is no doubt in my mind that by the first of December this deer will be antlerless during the present open season. I think this fact was proven definitely during the past antlerless season."—Game Protector Howard F. Hoffman, Susquehanna.

"The bears in this section fed on the good crop of beech nuts in the park area this fall, until I started trapping. Since then they have been feeding on my fox bait."—Game Protector Edward Shaw, Leeper.

"The deer season closed with a very light kill in this section. I checked only one camp that had more than two deer. Some only had one, and many camps with as high as 10 to 12 men did not have any. The heavy snow caught several hunters who were unable to drive their cars out of camp. Some had to leave their cars in the woods and walk 12 to 15 miles for help. I know of one camp that had nine men and three cars in it. They were six miles from the highway and spent three days shovelling out. Some managed to hire a team or tractor to pull their cars out. I saw two cars that were pulled in yesterday, about three weeks after being stuck. I have heard of some that are in there yet. They probably will be until spring."—Game Protector Clyde W. Decker, Clearfield.

(Continued on page 28)



The Hun either didn't like our environment or predators took a heavy toll. One thing is certain—they are on the verge of extermination.

turkeys. Hen grouse with clipped wings were stocked there. The wild males were attracted to the captives, but here another difficulty assailed the Commission's experiment. Predators stalked into the grouse area and made short work of the wing-clipped hens.

So in 1940 the Commission stopped trying to raise grouse. Besides the other difficulties in propagating this bird, it had been learned that the grouse increase in cycles. For a while grouse are plentiful, then grow scarce, with no apparent reason for the fluctuation. This factor alone made it questionable if grouse-raising in captivity would pay.

The Commission also conducted experiments with Hungarian Partridges, another foreigner. In 1925-26 over 28,000 birds were bought from Europe and released in sections of Pennsylvania that seemed similar to their native habitat. But in 1929-30, when field employees took inventory of the counties stocked, they found no birds at all in some of the counties where the birds had been set free, and a number of the partridges in other sections of the State where none had been released.

Attempts to raise the Hungarian Partridge on the Game Farms were satisfactory, but releases of the birds throughout various sections of the Commonwealth during the next ten years proved to the Game Commission that the Hungarian Partridge was a foreigner at heart and just "didn't belong." In some areas the birds stocked seemed to vanish into thin air. It remained a mystery whether they were killed by predators or just died.



The wild males were attracted to the captives.

The Problems of Game Bird Introduction and Propagation

(Continued from page 5)



A large number of Hungarian Partridges being released in one area. Because the birds were so "choosey" in mating it was believed that larger stockings would insure greater reproductivity.

At any rate, the Commission did not raise or stock any "Huns" after 1943.

The propagation of ringnecks continued successfully at the various game refuges. And the sportsmen, too, continued their individual efforts even though such efforts consumed much time, care and personal attention.

And then, early in 1931, a new step was taken. Still hopeful of some degree of success with machine hatching, the Pennsylvania State College and the Game Commission agreed to conduct a two-year experiment in the artificial incubation and brooding of ringneck pheasants. The Commission accepted financial responsibility of the new venture to the extent of $2000 for equipment, feed and miscellaneous expenses while the College offered facilities already on the grounds and the services of the professional and technical members of the College staff.

Two incubators were available—a cabinet agitated-air machine and a sectional still-air machine. Both machines were used for complete incubation and hatching. Two general methods were used in brooding the birds—the battery brooder and the colony brooder houses. The latter proved to be the most effective.

Special attention was paid to the nutrition of the little birds and it was discovered that a mash with 24% protein was better than a similar ration with only 20% protein for starting pheasant chicks. Reducing the protein content of their ration increased mortality, especially from cannibalism.

Although the Commission expended slightly more than the originally agreed upon $2000, the equipment purchased was available for use at the State Game Farms.

After this venture, the State Game Farms were mechanically equipped, with increasingly good results. Up to this time chicken hens had been used for hatching.



Chukar Partridges failed in Pennsylvania.

The Loyalsock State Game Farm was established in 1933 on 217.3 acres of land along Loyalsock Creek, a few miles above Montoursville in Lycoming County. At this farm advanced experiments in the propagation of cottontail rabbits were carried on in addition to the pheasant program.

The Fisher Farm also attempted to raise cottontail rabbits, and learned that the cost of propagating them in captivity was too high to justify the results.

The raising of ringneck pheasants, however, flourished. Sportsmen and farmers were taking an active interest in it. During the calendar years 1932 and 1933 the Commission shipped 115,805 pheasant eggs to individuals of these two groups throughout the Commonwealth, and they incubated the eggs and liberated the grown birds on non-posted lands near their homes. Of these 115,805, over 27,000 birds were reared and released.

In 1935 and 1936 the incubation system had been thoroughly tested and was producing satisfactorily. Attention could then be concentrated on the production of higher quality birds, establishment of adequate experimental operations, and material reductions in mortality and cost per bird. It was then that experienced employees of several years training in bird propagation were put on the regular monthly payroll. Relieved of the uncertainty of per diem employment and presented with the opportunity to advance on the merit system, these trained propagators responded with improved services and accomplishments.

To educate those interested in the subject, the Commission prepared two bulletins entitled respectively "Hatching and Rearing Ringneck Pheasants" and "Artificial Incubation and Brooding of Ringneck Pheasants." Both of these comprehensive pamphlets were written by trained staff personnel, and explained the necessary steps in connection with raising ringnecks with domestic hens and by the newer and more artificial method.

Wild turkeys, bobwhite quail and Hungarian partridges were also being raised on the various Game Farms by this time. Consistent gains were registered in artificial incubation of these birds. At the Fisher Farm the percentage of ringneck pheasant hatches increased from 84.5% in 1934 to 86% in 1935. Bobwhite quail hatches increased from 85.4% in 1934 to the amazing figure of 93% in 1935. Similar improvement was also noted at the Jordan Farm.

The new policy of releasing the State Farm reared birds to a wild habitat in the spring of each year was adopted. The birds held in captivity survived the severe winter weather, and were released in the spring in plenty of time to breed and become accustomed to their wild environment before hunting season opened the following autumn.

On February 1, 1940 the Commission formed a consolidated operating division in the Harrisburg administrative offices, designated the Division of Propagation and Research. This division assumed responsibility for the operation of the Commission's four State Game Farms, the purchase of all game additional to that raised at the farms, the distribution throughout the Commonwealth of all game for release, the trapping and transfer of wild game, and the conducting of

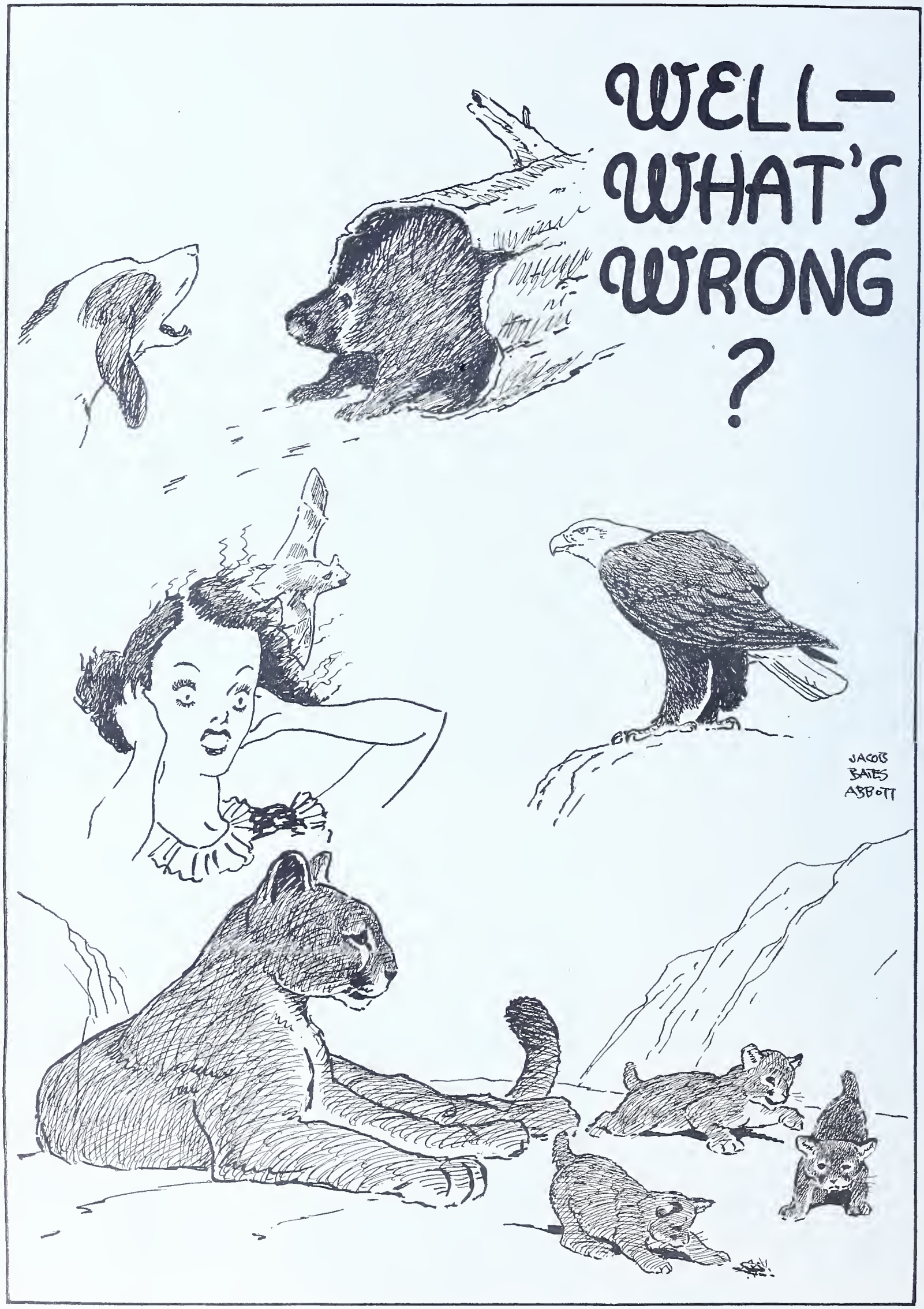
(Continued on page 25)



The above looks like Bachelor's Row, only none of the birds happens to be a bachelor.



Covered rearing field at pheasant farm with food and cover strips planted in the aisles.



If You Are Not Quite Sure Better Turn to Page 32.

The Problems of Game Bird Introduction

(Continued from page 23)

research studies in connection with all branches of the Commission's activities.

By the close of 1942 the Commission had established twenty-one Wild Turkey Propagating Areas located in the true range of the wild turkey. From these areas, eggs were collected for use at the Wild Turkey Farm. At other areas the hens were allowed to hatch and raise their young.

To further educate sportsmen, farmers and other conservation-minded citizens interested in propagation, the Commission published more detailed pamphlets containing instructions for successfully raising pheasants and quail, and produced two important educational films showing operations on the State Game Farms.

In the past few years progress has been even more steady because of the knowledge acquired by earlier experiments. The propagation program is being carried on in spite of the many difficulties caused by the war. But it is important that game be increased now, especially, so that when peace comes there will be better hunting for more and better hunters.



Young wild turkeys propagated at the State Wild Turkey Farm.

Hunting a la 1950

(Continued from page 7)

tale. If some of our wild creatures could hunt us with the same weapons at their disposal as we have, I wonder who would end up in the frying pan, fallacies notwithstanding.

I almost forgot about rations. Not many places in peace times when a fellow needs the Army K, etc., but if hunting in strange country right here in the good old U. S. A. it's a good idea to have something besides a chocolate bar, especially if you sprained your ankle or were injured too badly to do anything about it until help came. Even some of those emergency fishing kits would come in handy though you were just hunting, say somewhere in Canada, where even a bent pin and a piece of red flannel would guarantee survival if you ran out of all other food.

Life Magazine (November 20, 1944) recently asked two Virginia hunters to select and test the GI equipment they considered most useful for civilian hunting. They picked 26 items and found all of them to be valuable. The three they liked best are the Army's nylon water-repellent tent, the light kickless carbine, and the cozy GI sleeping bag.



Photo by H. W. Mellinger.

Jim McCleary, of Quincy, with a 187 lb. 8-pointer killed in Elk County second day of 1943 season. The animal had a 19-inch spread.

They decided that camouflage clothing used in jungle fighting would be a great help in stalking deer, but cautioned camouflage users to "wear a red cap because the camouflage is so good you may be shot at by other hunters." Twenty-one of the items included: 1. A plywood packboard that makes a load easier to carry by distributing weight evenly; 2. A chemically waterproofed poncho; 3. Improved coffee and cooking pots from which meals for four can be made; 4. An ax; 5. A light-weight cooking stove that works in rain; 6. Two light carbines. (The hunters think the 30 cal. semi-automatic carbine will be good for hunting both small game and deer); 7. Flash lamp that can hang up by handles or stand on base and be tilted to any angle; 8. "Eisenhower" jacket with breast pockets; 9. A water-repellant sleeping bag; 10. Mitten insert and mitten shell with special finger for cold-weather hunting; 11. Inexpensive cotton socks; 12. A supereffective insect repellent and Holazone, a water purifier; 13. Water resistant matches and all-purpose soap; 14. A mountain knife; 15. Lightweight wool stockings and shoes with wide cuffs and cushioned soles; 16. Sateen field jacket for temperate climates; 17. A hunting cap with neck and earlaps; 18. Tent poles; 19. Jungle hammock with netting; 20. "Eisenhower" field jacket with slash pockets; 21. A waterproof bag in which field equipment may be stowed.

But to get back to this post war hunting business, I believe that hunters in 1950 will be more conservation-minded than they were in past years. The men returning from the battlefields will know what it means to be deprived of wholesome outdoor sport. They will want to take good care of the things they dreamed about wherever they were.

Hunting has been a mutual subject for discussion among servicemen everywhere. They have told each other about their state's conservation program and hunting conditions, and many of these discussions turned to arguments which sometimes nearly ended in blows. The Game Commission has received many letters from soldiers of all states, asking questions to settle arguments on various wildlife problems.

When these men come back they will want the same kind of sport they enjoyed before the war. They are not going to tolerate the use of firearms that will mean killing more game easier than they ever killed it before. In short, these returning soldiers will be sportsmen in every sense of the word.

(From the April 1939 Issue of GAME NEWS)

During April 1939, Mr. Harvey Eckenrode, caretaker at the Sunny-Glo Orchards, Cumberland County, found antlers of 14 bucks in one orchard during the pruning season.

While Newton McDowell, Deputy Game Protector, Chester County, was training his bird dog the animal came to a point. Upon investigation he found it had pointed a black snake about five and one-half feet long which was swallowing a quail. After killing the snake he cut it open to find a rabbit about two-thirds grown. Did the dog scent snake, quail or rabbit?

SCOUT SLOGAN

"A Scout Must Keep His Trap Shut" is a new slogan recently adopted by the Lock Haven Council Boy Scouts as a result of the rabbit trapping activities they are engaged in this winter in cooperation with the Clinton County Sportsmen's Federation.

Louisianan Selected For Field And Stream Conservation Award

The annual Field and Stream cup for the outstanding conservation accomplishment of 1944 has been awarded to A. C. Glassell, Shreveport, La. oil man and President of Ducks Unlimited, Inc. The award is the third of its kind received by the waterfowl restoration organization and its heads.

Mr. Glassell was selected by a special committee appointed by the nationally-known outdoor magazine because of his "wonderful work for Ducks Unlimited and waterfowl conservation," according to Eltinge F. Warner, publisher.

Among Mr. Glassell's activities has been leadership of Louisiana sportsmen in establishing a 37,000-acre waterfowl breeding refuge in Alberta. Named the Louisiana Lakes, the remarkable success of the project has inspired sportsmen of Texas, Oklahoma, Arkansas and other states to sponsor similar projects to help replace wild ducks they shoot.

The Field and Stream award was inaugurated in 1941 when Director Ira N. Gabrielson of the U. S. Fish and Wildlife Service was the first recipient. In 1942, E. Herrick Low, then President of Ducks Unlimited, Inc., received the cup. In 1943, the award went to Hon. Frederic C. Walcott, President of the American Wildlife Institute.

Ducks Unlimited, Inc. received the first of its three national awards in 1939 when it was presented with an annual plaque for the outstanding achievement in game conservation by the Rod and Gun Editors Association of Metropolitan New York. The award was based on a nation-wide poll of newspaper sportswriters.



Harold L. Lester with a catch of foxes trapped in McKean County in a ten day period.

IN MEMORIUM

His sportsmen friends will long mourn the death of Eli S. Grable of Washington, Pa. Although it occurred on October 27, the GAME NEWS was only recently notified.

Mr. Grable organized the old Tri-State Fox Hunters Association and was its president until it was dissolved to form the Pennsylvania Fox Hunters Association, over which he presided until he retired as Honorary President in 1943 due to poor health.

WITH THOSE IN THE SERVICE

When this issue of the magazine was in its infancy we had no idea that we'd be welcoming home one of our fellow associates, but betwixt then and now James N. Morton, Chief of the Division of Land Management, has returned to duty.

Captain Morton was with the Army Air Corps Intelligence for the past 26 months, 18 of them in England with the 22nd Photographic Squadron. Aside from briefing and other duties he was Public Relations Officer and was given the task of writing the complete history of his squadron, which was cited as a unit for unusual bravery in its photo reconnaissance activities.

"I more than enjoyed a grouse dinner recently and the meat sure came an odd way, believe it or not. A target we were using on one of our training courses caught fire from the explosion of a direct hit. While burning briskly, a grouse flew from the adjacent woods directly into the fire, struck a solid portion of the target and bounced back a considerable distance—dead. I made a perfect retrieve. The dressing was simple and the cook did a good job. I enjoyed eating it, but remembered where and when I had retrieved others.

"Everything is going swell here. There is much to do and so little time to do it!"—1st Lt. Robert Parlaman, Co. L, 304th Inf, APO 17829, New York.

NEW DEPARTURE

A digest of the business transacted by the Game Commission at its various meetings will be published hereafter in GAME NEWS.



Photo by M. J. Harding.

Forest Ranger Hen Asel, Clear Creek Park, Jefferson State Forest, with four red and one gray fox taken in that section last November.



Last year over 33,000 rabbits were removed from areas where no hunting is allowed and released in sections where public shooting is permitted.



AND NOW MY "TAIL" IS TOLD

In the July issue, on page 20, we ran a photograph of an 8-point deer killed by R. V. Frankhouser in Clearfield County first day of the 1943 season. The ironical thing was that the animal had no tail; someone had apparently shot it off.

On November 8, this year, we received the accompanying photograph of D. E. Weaklind of Ebensburg, Pa., who claims to have shot the tail he is holding off a deer, also in Clearfield County, the first day of the 1943 season. If the two gentlemen get together they might learn that they were hunting in close proximity to each other and that Mr. Weaklind shot the tail off Mr. Frankhouser's deer.

NOT LAWFUL

The other day we had an inquiry about the use of an automatic rifle from a soldier overseas. Our reply follows:

"In answer to your V-mail letter of November 16, we are sorry but the use of an automatic rifle of any kind, including the M-1, is unlawful for hunting any wild birds or animals in Pennsylvania under existing law. Just what attitude the Legislature will take, upon a change in the law to permit the use of the M-1 rifle for hunting in this State we are unable to predict at this time. But under the present law the use of that rifle for Pennsylvania hunting is forbidden."

A refuge keeper recently reported seeing a robin on State Game Land that had a white back, white tail and white wings.

THE TRAP LINE

Sometime ago Game Land Manager Elmer Pilling of Philipsburg, mentioned a new method of smoking traps that he learned from the Indians while visiting Northern Ontario. The other day we had a query from one of our readers asking for more complete information on this process. Mr. Pilling has obliged, as follows:

"Am glad to give you the dope on smoking traps. The Indians have learned to make use of what nature provides and the system that requires the least possible effort is the one practiced by them.

"I find that smoking is the best system for several reasons. It prevents rusting of new traps, it will stop the rusting of old ones, and it will color and deodorize new traps in a few hours.

"The Indian makes a short job of it by building a birch fire under a limb, and when it has burned down to coals he hangs the traps on the limb and throws the balsam twigs on the fire. We, too, could do this in an emergency when we needed a few traps treated and were away from home, but we would have to use hemlock instead of balsam; however, the green leaves do the trick.

"I built a smokehouse just the same as you would for smoking meat, made a stove out of an old five gallon can by removing the top, and cut a hole in the side at the bottom for draft. Save the top to lay on if the fire gets too hot, build a hardwood fire in this stove *outside the smokehouse* then when it gets burned down to coals set it inside and stuff in about a peck of chopped hemlock twigs.

"For treating new traps, first prop the jaws open slightly by inserting a small stick and wash in gasoline to remove grease; then, smoke three times or once each day for three days. After that, one smoking is enough to deodorize sufficiently. In treating traps that have caught skunks, possums, etc., wash in cold water and a little smoking will put them in shape again. Don't forget to prop the jaws slightly open.

"There should be a shelf in the smokehouse on which you can lay your hand ax, trowel, sifter, ground mat. if you use one, bottles of scent, and everything else used in your trapping operations. If you use snares, smoke them also.

"When you first start smoking your traps there will be considerable moisture so have the ventilator open until things get dried out; after that, keep it closed.

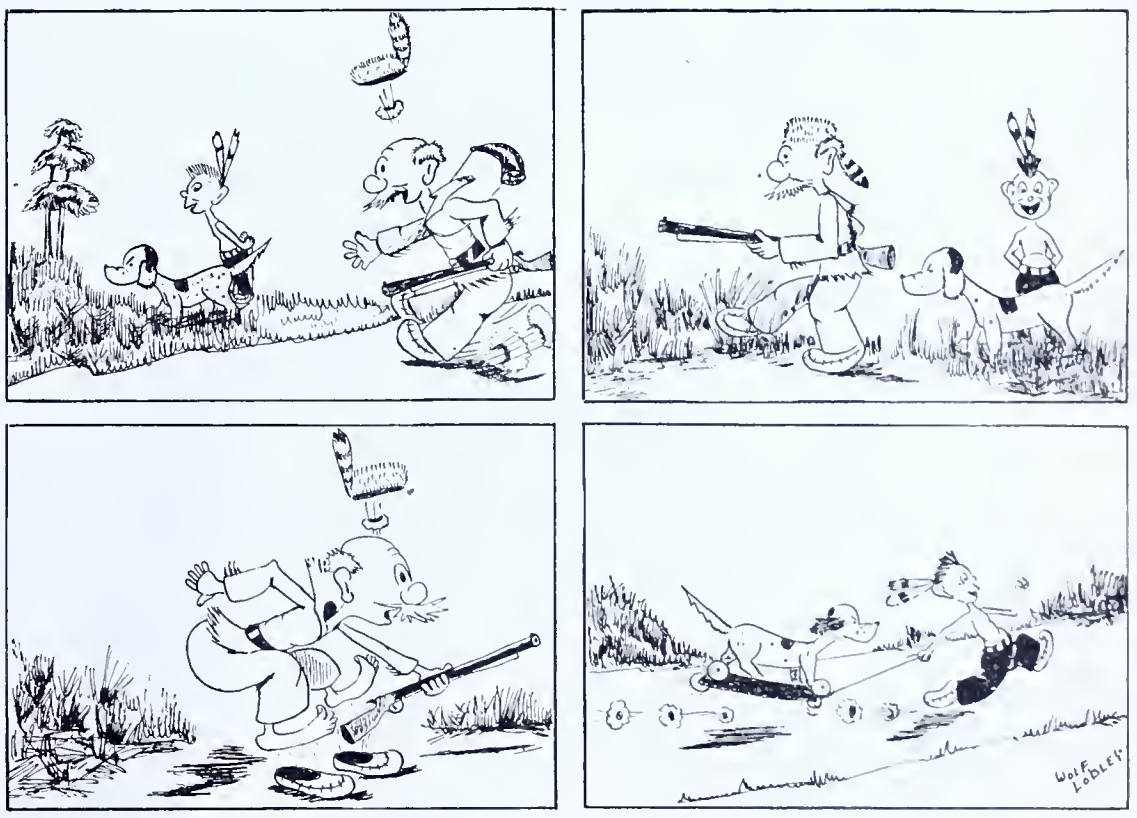
"This may appear to be a lot of trouble, but it pays to get things in proper shape at the beginning and after that you will be surprised how little work is needed to keep your traps in proper condition.

"I have set these smoked traps on my knee with bare hands and caught red and grey foxes, but this was purely experimental. I wouldn't make a practice of it. Don't lose valuable pelts by being careless.

"I also have iron stakes fastened permanently to my traps and they get smoked together with the rest. The stakes are made of one-half inch iron pipe, one end flattened for driving."

FEW ELK LEFT

A herd of from twelve to eighteen Elk still exists in Pennsylvania, mainly in the Hicks and Dents Run section, which takes in parts of Elk and Cameron Counties. Mr. M. E. Sherman, Field Division Supervisor, of DuBois, reports that one bull has been illegally killed every year the past four years, but none in 1944, and that the herd is barely holding its own.



FIELD NOTES

(Continued from page 21)

"I saw a pileated woodpecker in Cambridge Springs. I believe it rather unusual for this species to be found in a town as their habitat is secluded woodlands.

"Ed Burkley brought a Cooper's hawk for me to examine. We cut it open and found that the bird, before being killed, had feasted on a ringneck pheasant.

"Old-timers in this section say that they have never seen the water in creeks and swamps as low at this time of the year.

"The over-abundance of opposums may have something to do with the scarcity of grouse and small game. These prowlers are so numerous that ground nesting birds and animals have little chance of rearing young unmolested.

"Trapping regulations could be much improved if the mink and muskrat season opened at the same time and if the opening date was a short time before the start of big game season or after the close of big game season. This would facilitate better enforcement of the laws governing trapping. No water sets should be permitted before the opening of muskrat trapping season for the taking of minks or 'coons because many rats are taken in sets made for 'coons and minks, and the trapper either throws the rat away or takes the pelt in violation of the present law. In proportion to the number of rats taken in this manner very few are turned over to enforcement officers.

"This is not entirely my own opinion for I have talked to many experienced trappers and they feel the same way about the matter. They all say that it is just about impossible not to take muskrats in mink sets even if the sets are made by the most skillful mink trapper. The way inexperienced trappers and beginners try to take minks is simply rat trapping deluxe. Many trappers think that there should be a special license for trappers costing from two to five dollars the funds derived from this license to be used to purchase lands suitable for furbearers and for the improvement of those lands."—Game Protector Elmer D. Simpson, Cambridge Springs.

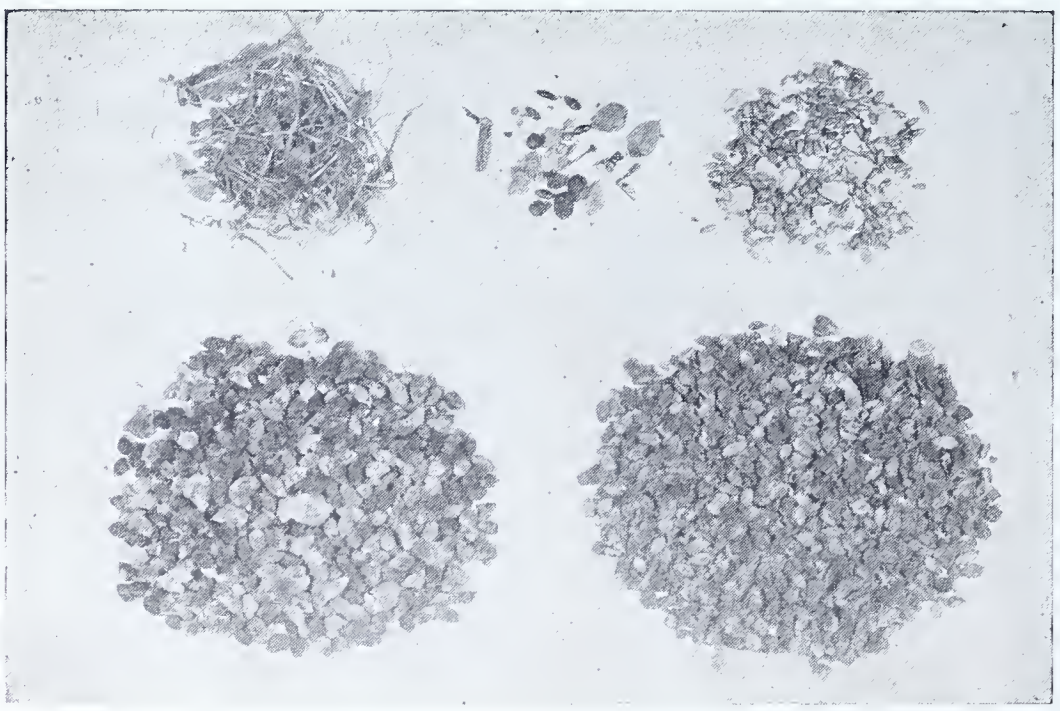
"On November 20 we had our first snow in this area. On this date, accompanied by Ed. Brant, Dog Law Enforcement Agent, I went to visit my fox traps. Caught two red and one gray fox. I also caught a licensed dog with a name plate on its collar. Due to the weather conditions after having released the dog from the trap I put it in my truck. I also put my raincoat in the truck for the animal to lie upon as he was quite muddy. I was gone from the truck some 15 minutes to another trap. When I returned he had torn my perfectly good raincoat to ribbons, apparently to make a bed. I took him to Hill Valley to his owner, who was very much pleased to get him back. Then I showed the owner what his dog had done to my coat and asked him to reimburse me for it to which he readily agreed. Thus ends another chapter in the history of true sportsmanship."—Game Protector Wm. Lane, Hustontown.

"Very few of our many young chestnut trees in this section were hit by blight this year. Most of the larger young trees have fruit of which much is good."—Game Protector Paul L. Failor, Mt. Pocono.

"September 29th I saw where a bear had dug down 5 feet in very rocky soil after a woodchuck. He got the woodchuck."—Game Protector Ernest E. Hunsinger, Conrad.

T. L. Speece, Duncannon, R. 1, killed two Cooper's Hawks in his barn. The bold creatures were after his chickens, a goodly number of which they had previously killed.

The amount of kraft pulp required to produce enough powder for a single carbine cartridge would make a piece of wrapping paper large enough to wrap a small lemon.



Above are the crop contents of a 20-pound wild turkey gobbler killed in Miller Township, Huntingdon County by Howard Shilling of Huntingdon on November 20. As near as they could be separated and counted, it contained 756 whole and 1653 parts of dogwood berries, 196 grains of wheat, 15 grains of corn, 3 grains of buckwheat, 5 frost grapes, 1 thornapple, 1 grasshopper, 1 bee, 1 beetle, 1 worm, 12 unidentified seeds, 4 small stones, and a small quantity of sticks and grass.



Photo by Rev. R. J. Wolfe.

When about to post a "no trespass" sign on the above tree last October, Rev. Wolfe heard an angry buzzing and in a few moments was in high gear down a mountain trail pursued by a lot of honey bees. He returned to the tree during the big game season hoping to get some of the honey, but a bear beat him to it. Note how bruin ripped the trunk open.

MY DUTY

Perchance a returning soldier, who braved the grim and excruciating strain of battle and fatigue, will be looking for you. Why! Because he will have a hankering desire to find the hidden places, where the soft lisping whispers of the winds blow through the tall trees and the babble of a mountain brook will sing a song of peace and contentment. His jittery nerves and his weakened physical body needs the soothing environment of the wilderness and your companionship.

This will be my time and this will be my duty, as his fellow countryman, to find the place for him. I shall take him with me and do my best to cheer him and help him back to his former stability. He shall be away from the rattle and clash of gruesome battle and war which has torn him down. I shall rehearse him to the philosophy of life that his inherent sense of fair play and good will now strives to attain. All this might have gone awry in the technique of warfare. Now he struggles to regain himself.

Yes, I shall call upon my younger fellow countryman to go with me to one of these places where nature reigns. The retrospect of grim and cruel war is now seen as a means to an end, while he longs for the sympathy of the surrounding countryside where HOME and PEACE greet him.—M. E. Sherman, Field Division Supervisor, Division E, DuBois.

TWO IN ONE

William M. Elder, of Marietta, knows that you *can* kill "two birds with one stone"—or rather, two birds with one shot. He's done it!

While hunting near Maytown, a few minutes after the opening of the small game season, Elder brought down two ringneck pheasants, the bag limit for the day, with one single, well-aimed shot.

But an even better record was made by John Ackley, of Danville, while hunting at Strawberry Ridge. The hound chased a rabbit across John's gunsights. John let go and saw that he had made a kill.

He walked over to pick up the bunny he had hit, and found not one, but three rabbits out of action.

The only way he can explain it is that the chased rabbit and the shotgun load arrived at the same time just where the other two unlucky bunnies were hiding in the grass.

George Gaugher, 76, of Kenilworth, has made a record, too. This year marked his 64th year of small game hunting. He started out like an experienced nimrod should by bagging two pheasants and a big rabbit the second day of the season.

The wild geese had the right-of-way over the intersection of the Swamp Road and the Ridge Pike, near Norristown, on October 23.

A four-gander flock, estimated to number more than 900 birds, almost stopped automobile traffic when drivers stopped their cars to watch the unusual spectacle. The birds flew at about 300 feet elevation. Three ganders formed an advance V. A fourth gander, acting as parade marshal, was twice seen to cut off the longer left leg of the V and direct the birds to tack onto the right leg.

Wild geese were in season.

The target was perfect.

Nobody had a gun!



LIVE WIRE CLUB

The East Huntingdon Sportsmen's Association near Scottdale, Westmoreland County, is an up and going outfit. In little less than a year it built its membership to four hundred, of which over fifty are cooperating landowners who permit public shooting on their farms.

The headquarters of this organization is a rural school which it purchased and remodeled, both for a club house and for a recreation center where the country people hold their square dances and other social functions.

The members conduct a rabbit trapping program each winter, raise ringneck pheasants, feed game, and otherwise render assistance to the local game protector.

At present the association is headed by Francis King, President, Clifford Shively, Secretary, and Dewey Smouse, Treasurer. Many of its membership are ardent bird dog and beagle fans and the club sponsored highly successful field trials this fall. Some of the members and their canine entries are shown in the accompanying photo of the organization's second annual field trial.

QUESTIONS & ANSWERS

Question: While hunting deer in Pike County the last day of the buck season, I noticed quite a few hunters posted in tall pine trees, in and around quite an area of scrub oak, and judging from the shooting, their method of hunting must have been quite successful. Is it lawful to climb a tree in quest of deer or any other type of game?

Answer: There is nothing in the Game Law to prohibit a deer hunter from killing a legal deer in season while that hunter occupies a position in a tree. However, persons who climb trees to shoot game must be very careful in handling firearms so as to avoid personal injury.

Question: Is it legal for a Pennsylvania hunter to carry the game he shoots in Pennsylvania into another state?

Answer: It is strictly unlawful for any hunter possessing a Resident License in Pennsylvania to remove a deer or other game from the Commonwealth that has been killed under that license. He could not, therefore, carry a deer into New York State, even though it is his intention to return again to this Commonwealth with the animal. He must keep within our boundaries.

Our Game Law permits deer or other game legally taken in another state to be possessed in Pennsylvania. A hunter who takes game lawfully in New York State may therefore possess his game in this Commonwealth, if he tags it to show where, when and under what license it was killed.

While we cannot speak officially for the laws of New York State, we can inform you that a resident hunter in Pennsylvania may not remove a deer to New York State for storage and no permit will be issued for that purpose.



The East Huntingdon Sportsmen's Association's members are ardent field trail enthusiasts and numerous such events are held every year both for bird dogs and beagles. The above group typifies the interest shown on these occasions.

Letters to the Editor

(Continued from page 14)

to load and shoot a muzzle-loading rifle to bring squirrels—and sometimes a wild gobbler—home. But, I still think there was more excitement chasing wild hogs.

"If I yelled in ordinary manner any wild hog in hearing distance would run, but if I hooted like an owl, they kept on rooting even though I was close enough to see them. Incidentally, I have tried that stunt on deer here in Pennsylvania and they didn't run.

"I am hoping to try again this fall for a buck. I had a couple of misses last fall, either from lack of practice on target or poor shooting, or both. However, I hope to correct some of that before December 1, but the practice will be limited because of scarcity of ammunition."—Richard Huskin, Grove City, Pa.

EDITOR'S NOTE: Hope you bagged one this season. Tell us if you did. It will be a darn good sequel to this little story.



Of the accompanying photo, Jule Hoyer says, "to the left is my uncle Ed Willis, to the right me, both of Lewistown, with an evening's hunt of 8 fine woodchucks, all head shots. The rifle is a custom .224 Hoyer Destroyer, so named after my brother who designed the shell and built up the rifle for me. It's a Mauser action with a Winchester .224 barrel blank. The shell is the Winchester .220 Swift with the same loading capacity with a 45 degree shoulder slope which proves to be about right for 63 grain bullets at around 3800 F.P.S. Kills up to 350 yards are common. Shots can be called up to 275 yards. After being around about 3000 chuck funerals in my early life, I can state the little .22 cal. is pretty light for hogs but for an expert who can pot 'em in the dome every time, it's O.K. I've used the little .22 and found they wiggle in the hole sometimes with the best of shots.

"I can safely recommend such rifles as .220 Swift, .22 Varminter or any other .22 HIpower cal. for this type of shooting, with a good make of scope. A 6x is very good although my shooting friends use 8x to 16x with fine results. My rifle is equipped with a 6x Zeiss.

"We go in for big binoculars. When you find the gang of us out you'll discover we have two pairs of 12x60 Leitz, one 10x50 Zeiss, and one 10x50 B.&L. These glasses are the finest glasses in the world. You wonder why we go in for power. Experience has taught us to get a pair you can see with. What the dickens does a guy want with a glass that you can't call a hog at 250 yards at the mouth of his den. I started with the 6x30 glass and 7x50 also 8x56. For deer hunting you can make 'em do. I'll take the 12x and 15x. When I call a hog I know it's not a hog hunter's hat in the grass nor his foot sticking out of a row.

"Our best evening was 10 hogs. That's knocking 'em off for two fellows! We see in the neighborhood of 15 to 20 hogs in an evening. Being war workers we only get a chance to hunt 'em after work. Being a very good eating game we have no trouble at all passing them around to friends.

"When I refer to the gang I'll name a few of our expert hog hunters: U.S.N. Walt Filson, No. 30-06 with 3x scope; Bell the Gunman, .270 Winchester 4x; Ed Willis, .257 Remington 3x; Alex Hoyer, Gunsmith .22 Hypodermik with 15x, the rifle his own make a .22 on a 30-30 case very sharp shoulder; Ken Owens, .22 Varmints 15x; Chet Leach, .270 Win. 10x scope; Bill Mahoney, .220 Swift 16x; Len Aurand U.S.A. .220 Swift 10x; Ole Bill Palm, .220 Swift 6x Busch. You'll note a fine bunch of hog huntin' guns.

"Our gunsmith and the gang have been grooming up a .25 cal. on the .30-06 case with a very sharp shoulder. I'll predict the outfit will be sure killing up to 450 yards. Should also make a fine deer rifle. If you doubt any of these statements write to Ole Man Bell the Gunman—he'll put ya straight. Most of the gang are hand loaders. If we depended on factory ammo we'd of been licked for shooting. All our loaders are capable of loading with fine accuracy to shoot about an inch group at a hundred yards. That's hog accuracy.

"Our special cartridge for deer hunting

(Continued on page 32)



Photo by W. O. Mitchell.

The family meat points are about to be stretched by these three young groundhog hunters who have their prize almost ready for the pan. Eddie Leigey is skinning the animal while his three-year-old brother, Joe, and Jimmy Greenland, of Karthaus, supervise the job. Eddie and Joe are sons of Mr. and Mrs. Edward Leigey, of Frenchville.

THE DEER WERE IN BED--

A Tale from Rattlesnake Shack

By A. B. Champlain



IT WAS around 4 P.M., Saturday, December 16. The last day of the deer hunting season was nearly gone. There was some snow on the ground, tracked here and there over the trails by the imprints of men's shoes and deer feet. Most of the deer tracks were old. By this time hunters were more or less inactive, some moving out, and no particular drives going on. There had been few rifle shots during the day in this area and it was so quiet it seemed as though the game had moved out too.

Previously one of our party had followed for a time two fresh sets of deer tracks in the snow leading up the mountainside from the lower levels. Being rather curious to see a deer once more before the closing hour, I followed them. I surely expected to see a tail or two at least, and plodded upward through the snow in anticipation.

Up and up the tracks led, through the thick laurel bush, over rocks and across open wooded areas, and I followed. Hot work even on a cool day. Finally the foot of the steep ridge of Stony Mountain was attained, the tracks even more plainly visible. Up over the last hillock and the bench was reached. With the wind quite sharp in my face, and alert for the glimpse I had promised myself, over I went.

No tails in sight. But what was the dark blot against the snow not thirty yards away? It looked like an old cow in the barnyard. I advanced, scarcely believing my eyes, and counted six deer bedded down in the snow with their rears toward me. Leafless saplings and standing tree trunks made an indefinite challenge to the picture as a whole.

At the time of my abrupt appearance into this picture, all must have been serene. Now the big old doe in the foreground casually looked around. I dropped behind a tree, not half large enough to conceal me and this movement did not escape notice. All of the deer arose to their feet and appeared restless. They could not scent me but they knew all was not well. Finally a doe more curious than alarmed approached cautiously. She came so close I could have patted her on the nose. After a few well directed sniffs, for I remained quiet, she let out a snort and up the "steep" she raced. Another deer, rather young, came part way, but quickly returned to the others and finally ran up the hill.

After 15 or 20 minutes in the uncomfortable position I had taken in the snow (seemed an hour to me) I began to stiffen in my joints. I could see no "rack" and decided to get onto my feet. When I arose the four remaining deer "let out" down the hill and I could not determine a buck among them.

Limbering up my cramped and frozen muscles, I also started down, following the four sets of tracks. Part way down, three deer turned aside and I, following a short distance, came upon them, standing and eyeing me curiously. They did not seem particularly alarmed and when I observed that not one wore a headpiece, returned to the remaining track that continued down the hill.

I followed this track at least three-quarters of a mile, across trails, over ledges, through brush and along paths. Finally the tracks crossed the road and went up the mountain again. Here I quit for I was within a stone's throw of my own camp. This deer, perhaps the buck, had taken me home to Old Rattlesnake Shack.

At any rate, I got a bigger kick out of this experience than I did at the shot I had at the big old buck the first day. He's still going too, I hope!

TRAPPERS HERALD BEAVER SEASON

From February 15 until March 1 (Noon), beavers may be trapped in 36 counties of the Commonwealth.

No trapping is allowed in the counties of Adams, Allegheny, Armstrong, Beaver, Bedford, Berks, Blair, Bucks, Cambria, Cumberland, Delaware, Fayette, Franklin, Fulton, Greene, Huntingdon, Indiana, Juniata, Lawrence, Lebanon, Lehigh, Mercer, Mifflin, Montgomery, Northampton, Perry, Philadelphia, Somerset, Washington, Westmoreland, and York. **Non-Residents may not trap beavers.** One person may set tend or operate 10 traps only. **Traps must not be placed closer than 15 feet** from the waterline on any established beaver houses. **Pelts must be tagged within 10 days after season,** and may not be sold or otherwise disposed of until properly tagged. Present them to Protector in District or County where trapped.

Trapping—Traps for fur-bearers and raccoons not to be placed before 9 A. M. on Nov. 1, or before 8 A. M. on any later opening date for trapping. The season on the last date indicated for trapping closes at 12 o'clock noon to permit removal of animals caught on the last night of the season and lifting traps by daylight.

BOOK REVIEW

Eagles Mere and the Sullivan Highlands by J. Horace McFarland, L.H.D. and Robert B. McFarland.

168 pages 8½ x 11 inches, 68 full-page illustrations printed in double-tone ink on dull coated paper. A book you will want to own and one which any friend will valuc as a gift. Published by J. Horace McFarland Co., Harrisburg, for $3.75.

For nearly half a century the authors have vacationed in this highland region of mountain and valley, of lakes, glens, and forests. In this volume this, wildly scenic land is briefly described so that the vacationist may be tempted to learn for himself thc many other natural beauties of the area.

The Country Rod & Gun Book, By Arthur Wallace Peach—Published by A. S. Barnes & Co., New York—Price $1.50

Fishermen and hunters will find in this book time-tested tricks and experience-proven secrets of winning on field and stream.

Generations of wise old country men have handed down much of the hard-won rod and gun knowledge which the author has cleverly transcribed to make it useful to beginners as well as oldtimers; and arm-chair sportsmen will find great interest in the philosophy and tall tales that are so characteristic of the spirit of these sports.

Talk About Wildlife, By Ross O. Stevens—Published by Bynum Printing Co., Raleigh, N. C.—Price $3.50, Student's Edition—$2.25

Every sportsman who has an honest desire to know as much about wildlife in its management as possible will find the answers in this unique thought provoking dissertation on the subject. Mr. Stevens has done an exceptionally fine job in presenting a smooth running account of a very broad and in many instances a very technical subject. Every phrase of wildlife conservation is covered thoroughly and each is illustrated profusely. It would be invaluable to the teacher of conservation education in the public schools.

Natural Principles of Land Use, By Edward H. Graham—Published by Oxford University Press, New York—Price $3.50

In non-technical terms and in a style easily followed, *Natural Principles of Land Use* deals with ways in which a knowledge of living things can be profitably applied to the management of land. This is a subject of urgent importance today and one which has never before been treated at length.

The first few chapters discuss factors affecting the distribution of plants and animals. Systems of land classification are described. A practical scheme is outlined which determines the uses for which particular parcels of land are best adapted. Many instances of misuse of land are also described. Streams and ponds are discussed, particularly as the use of land relates to stream pollution, and ground water supply. Consideration is also given to the introduction of non-native species of plants and animals and of the control of rodents, weeds and other undesired forms of life. A final chapter deals with the relation of land use to human welfare, culture and society.

The Preliminary Report on the 1944 Hunting Season

(Continued from page 3)

sult if the remaining stock can be pulled through the severe winter and there is a good breeding and hatching season this coming spring.

Comparative Statement

As a matter of comparison, the official game harvest, based on the tabulation of the Game-Kill Reports, for the past five years, is given below, with the 1944 preliminary field estimates:

Species	1939	1940	1941	1942	1943	1944
	(Final figures based on hunters' individual reports)					(Field Estimates)
Deer, Legal Antlered	49,106	40,995	19,271	30,860	23,931	15,069
Deer, Legal Antlerless	14,581	145,580	Closed	Closed	14,951	Closed
Bears	535	524	593	149	307	264
Rabbits	3,804,701	3,266,537	3,575,104	3,504,390	2,572,993	1,287,850
Hares (Snowshoes)	Closed	Closed	Closed	6,019	3,716	1,282
Hungarian Partridges	Closed	Closed	Closed	485	250	206
Squirrels	945,471	1,044,784	936,213	1,201,979	779,745	513,414
Raccoons	38,452	40,802	44,145	32,664	45,320	48,306
Wild Turkeys	5,191	5,218	3,911	3,938	2,297	2,242
Ruffed Grouse	237,245	221,474	187,990	237,408	117,219	53,389
Ringneck Pheasants	471,539	459,071	537,990	463,794	431,735	244,432
Quail	111,674	74,808	70,929	68,409	41,373	23,775
Woodcocks	40,816	29,087	31,328	27,729	15,588	11,605
Snipe, Rails, Gallinules and Coots	6,294	5,091	4,162	2,671*	1,779*	5,915
Grackles (Blackbirds)	47,449	43,204	46,566	38,888	25,764	.....
Wild Waterfowl	38,474	52,060	55,836	64,454	53,998	40,863
Woodchucks	178,691	190,735	196,729	184,921	157,202	134,643
Total Number and Weight	5,990,219	5,619,970	5,710,767	5,868,758	4,288,168	2,383,255
Reduced to Tons Equals	8,897†	13,277†	6,645†	7,100†	6,110†	3,362†

* Season closed on Snipe.
† Tons.

Number of Days Hunted

Since 1939 the Commission has been tabulating the number of days the average man hunts and how he divides his time between small game and big game hunting. It is possible to secure this information at the time the game-kill is tabulated without an extra mechanical operation. The tables which accompany this article give complete information on this subject for the years 1943 and 1942.

The 436,276 hunters (1943) who gave this information enjoyed a total of 3,077,842 man-days, (different days on which they hunted) of sport afield, as compared with 325,127 hunters who in 1942 reported 2,294,548 days. If the same average held true for the 582,245 licensed hunters in 1943, the license holders in Pennsylvania devoted a total of 4,133,939 separate man-days to hunting, during which time there were 4,288,168 pieces of game taken. On the basis of the 1942 report, the 649,215 licensed hunters devoted a total of 4,619,426 separate man-days to hunting, during which time there were 5,868,758 pieces of game taken. None of these computations take into account the amount of hunting or the total game killed by the farmers on Pennsylvania's 169,027 farms, many of whom did not secure licenses.

According to the individual reports, during the 1943 season 20.9% of the licensed hunters killed no game, as compared to 15.4% during 1942. This includes not only those who were unsuccessful but also those who bought licenses and did not have an opportunity to hunt.

Hunters Cooperating

The Commission has tabulated the reports for seven years. The table below shows how splendidly the sportsmen have cooperated with the Commission in this matter during the past five years:

	1939	1940	1941	1942	1943
Total Licenses Issued	662,899	679,168	686,356	649,215	582,245
Number of Reports Filed Voluntarily	589,734	609,778	580,974	525,631	462,580
Number of Special Reminder Notices Mailed	68,780	70,966	102,827	123,003	120,258
Percent of Licenses Represented in Final Tabulation	98.5%	98.5%	97.5%	96.4%	97.5%

DATA ON NUMBER OF DAYS HUNTED—1943

No. of Hunters Reporting	Percent	Kind of Game Hunted	Number Separate Days Hunted	Average Number of Days per Hunter
36,765	8.4	Big Game Only	132,909	3.6
188,090	43.1	Small Game Only	937,203	5.0
211,421	48.5	Both Small and* Big Game	2,007,730	9.5
436,276†	100%		3,077,842	7.1

* Small Game 1,237,622 5.9
* Big Game 770,108 3.6
† This is 76.9% of the 567,065 hunters who filed Game-Kill Reports. Of this number there were 118,449, or 20.9%, who did not kill any game. An improvement in the 1943 blank made it easier for hunters to supply information on the number of separate days hunted.

1942

No. of Hunters Reporting	Percent	Kind of Game Hunted	Number Separate Days Hunted	Average Number of Days per Hunter
17,271	5.3	Big Game Only	51,368	3.0
164,913	50.7	Small Game Only	870,557	5.3
142,943	44.0	Both Small and Big Game	1,372,623*	9.6
325,127†	100%		2,294,548	7.1

* Big Game 471,714 3.3
Small Game 900,909 6.3
† This is 52.0% of the 625,285 hunters who filed Game-Kill Reports. Of this number, there were 96,131, or 15.4%, who did not kill any game.

1944 Reports in Hopper

At the time the January issue of the PENNSYLVANIA GAME NEWS is off the press thousands of the 1944 Game-Kill Reports will be in the tabulating hopper, with the balance to follow as fast as possible. However, it may be as late as March 15 before the Commission will know the license numbers of the hunters who filed their reports as required by law, and also the license numbers of those who neglected to comply with this requirement of the law. It is hoped that your license number will show up in the majority group of hunters who always make it a point to file their reports voluntarily, rather than in the minority group of those who negligently fail to file their reports until the matter is called to their attention.

Answers to WHAT'S WRONG

1. A cornered porcupine would probably present his tail-end to the animal. The long death-dealing quills are in his tail.

2. The tarsi (legs below the feathered thighs) are not feathered in the Bald Eagle as they are in the Golden Eagle.

3. Don't worry about bats in your hair. Bats have keen vision day and night, a "sixth" sense that prevents them at all times from striking any foreign object.

4. The young of mountain lions (panther) have long tails and are spotted.

LETTERS TO THE EDITOR

(Continued from page 30)

for long range up at Tioga County is Alex idea and my own. It's a .300 Super Magnum and will zip a 180 gr. bullet at 3500 F.P.S. Almost certain kills can be made at ranges up to 500 yards, with 6x or 8x scopes. As a hog rifle it has made some fine long range kills, but the farmers don't like the big boom. It's truly a big game gun."

Leaves From A Hungry Hunter's Notebook

(Continued from page 11)

ments not to mention saving money on the grocer's bill. You will be just as proud of the delighted expressions on your guests' faces, as they thrill to the taste of that roast pheasant, as you were when you folded him up in a flurry of feathers at forty yards.

PENNSYLVANIA Game News

February 1945



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EDWARD MARTIN, GOVERNOR

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VOL. XV, NO. 11

EDITORIAL

February, 1945

IN THIS ISSUE

★

How Does the Game Commission Function?
By Ross L. Leffler

★

Wildlife Management with Emphasis on the Ringneck Pheasant
By P. F. English

★

City Slickers
By Jacob Bates Abbott

★

The Mystery of Migration
By Ivan T. Sanderson

★

Rations for Bobwhite Quail
By W. J. Stadelman, E. W. Callenbach, R. R. Murphy and R. V. Boucher

★

What's Happening to the Grouse?
By J. C. Gilford

★

Digest of the Business Transactions of the Game Commission

★

"The Pen is Mightier" . . .

★

Hare Huntin'

★

Cover by Jacob Bates Abbott

★

THE MERGER of the Game, Fish and Forestry Departments in Pennsylvania has been the subject of a great deal of discussion. Those who favored a three-way consolidation apparently have abandoned the idea of combining Forestry with the other two, which is as it should be.

Governor Martin in his message to the opening session of the 1945 General Assembly said: "In order to simplify and economize in administration it has been suggested that the Fish and Game Commissions be consolidated." The Governor made no specific recommendation, but laid the matter before the Legislature for its consideration.

The recommendation for consolidation of these Commissions was made by a special committee, appointed by the Governor, after an extended study of all State agencies to determine how the business of the Commonwealth might be administered more efficiently and economically, and especially to assure greater benefits to both the hunters and the fishermen.

Those who favor a merger of the Game and Fish Departments point out that both would derive considerable benefit from the knowledge and experience of each other's personnel, that a coordinated program with uniform policies would be developed, and that the substantial savings resulting from a consolidation of the various services could be devoted to more fish and game for the sportsmen.

They state a unified field force would provide much better service during both the hunting and fishing seasons; that the Fish Wardens would benefit by receiving the higher average rate of compensation paid Game Protectors, together with annual salary increments for meritorious services and opportunities for advancement, as do our officers; and that a better magazine could be published if the *Angler* and the *Game News* were to be combined, and the best features of both retained.

It is also claimed that public demand will soon compel the Fish Commission to establish a land purchasing department to acquire extensive public fishing waters. If the two agencies were merged, only one such unit would be needed, producing additional future economy.

There would seem to be only one logical way to effect such a consolidation, which is to merge the two agencies, with a clear-cut stipulation that the Fish Fund and the Game Fund be kept separate and spent only to benefit the contributors to each. If this is ever to be done, now may be the time, when the *entire* paid personnel of both departments could be retained and used to the advantage of everybody concerned.

The Members of the Game Commission *are not* advocating any such consolidation, neither are they opposing it. This is a matter to be decided by the sportsmen who buy the hunting and fishing licenses. We shall try to keep you advised of Legislative developments.

The sportsmen of Pennsylvania have a right to know we are maintaining a neutral attitude in this matter. We have always proceeded on the theory that they should be kept fully informed as to our actions. In that connection there will be found in this issue of the *Game News* a digest of the business transacted at our meeting in January, an innovation which will be continued in the future.

ROSS L. LEFFLER,
President.

WELL WHAT'S WRONG



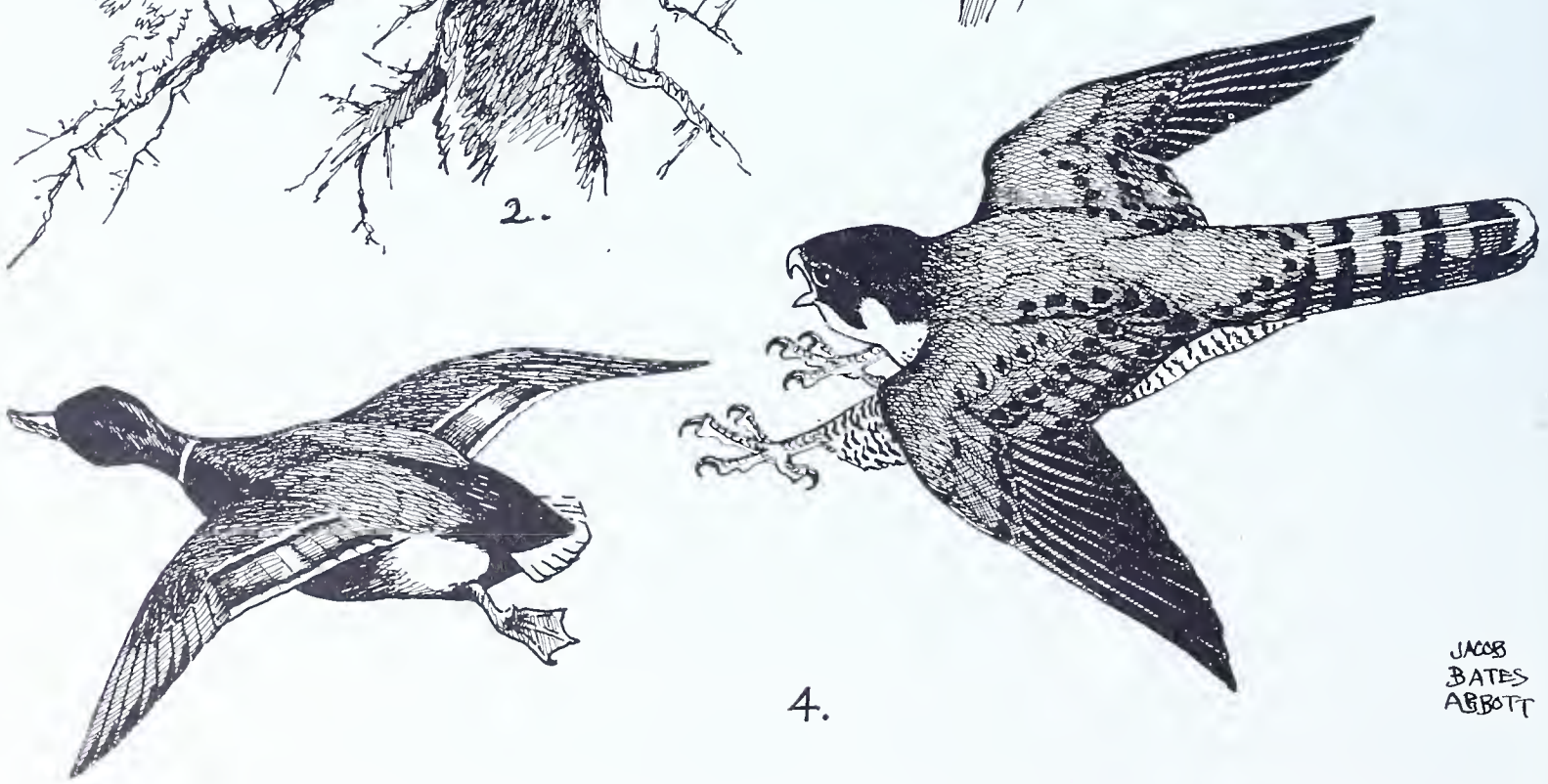
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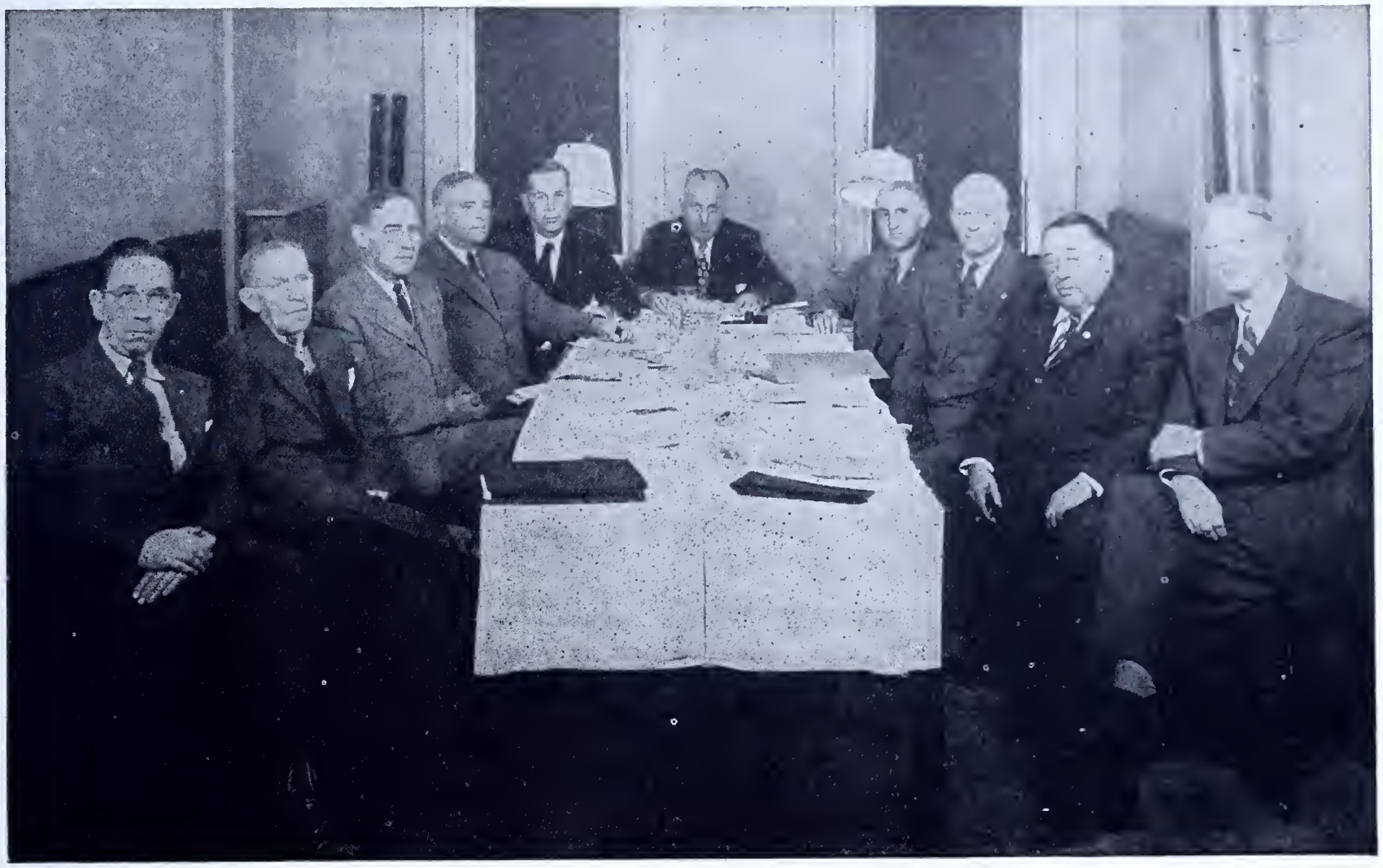
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4.

JACOB
BATES
ABBOTT

If you are not sure look on page 32.



Members of the Commission, its Administrative Officers and Recording Secretary in session last fall at Meadville. Left to right: T. W. Minahan, Recording Secretary, Commissioners Dr. H. E. Kilgus, G. I. Phillips, Harold Moltz, Robert Lamberton, Vice President, Ross L. Leffler, President, Seth Gordon, Secretary to the Commission and Executive Director, Commissioners John C. Herman, Dr. Carl B. Rosenkrans, and R. A. McCachran, Assistant Director.

HOW DOES THE GAME COMMISSION FUNCTION?

By Ross L. Leffler*

QUITE frequently questions are raised concerning the various phases of the work of the Game Commission, particularly the procedure employed in determining policies and how it arrives at the methods to follow in the development of the many programs and activities of the Commission. All of these inquiries can be summarized under the one heading "How Does the Game Commission Function?"

The Pennsylvania Game Commission is comprised of eight citizens of the State who are appointed by the Governor, by the advice and with the consent of two-thirds of all the members of the Senate. The Commissioners, who must be well informed on the subject of wildlife conservation and restoration, are selected to represent the various geographical sections of the Commonwealth. It must be remembered, however, that while the Commissioners are selected from various geographical locations, their responsibilities are nevertheless statewide. They receive no pay for serving on the Game Commission, even though their duties require much of their time and, in many cases, the expenditure of their own funds.

The Commission meets at regular periods throughout the year, with the dates and places for holding the meetings optional, except in January and July. These two meetings must be held at the State Capitol. It has been somewhat customary in the past to hold quarterly meetings, but recently they have been called every two months in order that the members may be kept more conversant with the many problems which are arising constantly.

Occassionally meetings are held elsewhere than in Harrisburg. This procedure affords an opportunity for the Commissioners to inspect the various State Game Lands; to familiarize themselves with the type of lands and observe the various projects existing thereon; and discuss future work which may be contemplated for the improvement of the lands. It also enables the Commissioners to broaden their general knowledge of statewide conditions, to make the acquaintance of sportsmen's groups throughout the State, and to exchange their respective ideas and thereby develop a mutual understanding and broader viewpoint.

The sources are manifold from which the Commission receives suggestions and derives information and data whereby it formulates the various conservation policies and programs. In addition to their own broad knowledge, the Commissioners obtain information from employees, both office and field; sportsmen and sportsmen's groups; experts in the various fields of conservation; and numerous other sources.

The individual employee is urged to present any ideas he may have which will contribute toward the improvement of any activities of the Commission. During the past year suggestions were submitted by practically every employee, some of which are now in effect and many others will undoubtedly be adopted later on.

Each member is considered by the sportsmen in his respective territory as their personal representative, and it is to him that many of their problems are brought. This constitutes a most important source from which every Commissioner obtains explicit knowledge of the conditions in his home region, and frequently suggestions for their

(Continued on page 24)

* President, Pennsylvania Games Commission.



The ringneck can stand a lot of hunting pressure.

WILDLIFE MANAGEMENT WITH EMPHASIS ON THE RINGNECK PHEASANT

By P. F. English*

Photos by W. L. R. Drake

IT has been only in recent years that game or Wildlife Management has been given a place with other farm and forest management practices. In olden times it was not necessary for our grandfather to think in terms of management because more game was produced in the wild each year than was harvested by the landowners.

We need, however, just to look around us to see the changes in earlier natural conditions which have been brought about by man's numerous activities. Many of these changes have been harmful to wild creatures, and if we who enjoy hunting and fishing wish to continue this form of recreation, we must restore their natural homes so they will increase and be as abundant as they were in the past.

Wildlife management then is a term which means managing our lands and waters in such a way as to produce a harvestable crop of the various game species. The question arises, however, can these species be managed profitably on land which must be used primarily for agriculture? The answer is YES.

In order to bring wild animals under management, we must place them under control either by fencing or otherwise controlling their movements. The latter method should be one objective. The movements of wild animals are determined by natural conditions such as year round food supply, places for protection, suitable localities where they can rear their young, year round cover, balance between game and predatory species and managed hunting (harvest of the surplus).

In other words wildlife management must be based on an exact knowledge of the habits of the animals (life history), and consists in manipulating conditions so as to direct the activity and control the inter-relations among wild creatures.

"Wildlife" is a term which includes more than small game animals, pheasants, squirrels and rabbits. For convenience let us group them as follows:

1. Songbirds, meaning the insect and seed eating birds.
2. Predatory birds—hawks, owls and sometimes crows.
3. Fur-bearing animals—the skunk, weasel, mink and raccoon.
4. Small game mammals—the squirrels, woodchucks and rabbits.
5. Game birds—ducks, and other waterfowl, pheasants, quail, grouse, Hungarian partridge, wild turkey and migratory shorebirds.
6. Rodents, or the small harmful mammals —mice, rats, and some squirrels.
7. Predatory mammals—or those animals which feed upon other animals.
8. Big game mammals—bear and deer.

Wildlife management on a farm has much wider implications than one might at first expect, and many parts of the problem must be considered. Some of them are:

1. Insects in relation to crops and stock.
2. Insects and the birds that feed upon insects.
3. Insect-eating birds and the animals which feed upon them.
4. Birds which destroy crops.
5. Game animals and the sportsmen.
6. Mammals which destroy crops.
7. Fur-bearing mammals.
8. Fur-bearers and poultry.
9. Increased game and the crops.
10. Game birds and the animals that feed upon them.

This list indicates the complexity of the problem and provides one explanation of why wildlife management on agricultural lands is a complicated undertaking.

In Pennsylvania our principal game on farms are the ringneck pheasant, the cottontail, the woodchuck and the bobwhite. Perhaps the cottontail stands the greatest brunt of the hunting.

In the discussion that follows I shall allude mainly to the ringneck pheasant but want you to understand that any improvements we may make for pheasants fit in very handily for the cottontail, so that pheasant management also means cottontail and other farm-game management.

In any project of wildlife management, we should consider every phase of the various inter-related problems, and above all, *we must continually keep in mind that the primary object of the farm is to produce revenue from crops and stock, so that the management of wildlife must be considered as secondary, and supplementary to crop and stock production.* If the farm land is State-owned then the Commission could farm it with wildlife management being given precedence.

Getting Down to Facts

A few outstanding facts that should be summarized before we undertake to outline a method of procedure for a management project.

1. *Pheasants, squirrels, woodchucks, quail* and *cottontails* are the *game species* to be especially considered on the *farm lands of Pennsylvania.*

2. Skunk, mink, raccoon, muskrat, red fox and opossum are the principal fur-bearers.

3. Rodents, such as mice and rats, may become an economically dangerous group if their natural enemies are destroyed.

4. Of all the animals, insects are the most critical source of damage.

5. Insect-eating birds are undoubtedly our greatest asset.

* Department of Zoology and Entomology, The Pennsylvania State College.

Herein are a few outstanding facts that should be summarized if the ringneck is to be managed properly

Management of game species must be so conducted as to encourage the valuable assets and discourage the dangerous features. For the sake of simplicity, our discussion will here be confined to the pheasant. That which is said will, however, hold equally well for our insect and seed-eating birds—in fact the improvement principle is applicable to all species.

Let us now summarize the points in the life of the pheasant to which we need to give special consideration.

1. The pheasant requires assistance every month in the year, not primarily during the winter months.

2. There are several outstanding movements which the pheasant makes each year. *First,* starting in the spring, the birds leave the grounds where they have wintered in comparatively large groups, and in pairs, or trios seek nesting grounds. They first select a territory which one cock protects against the invasion of all other cocks. Here they nest, and bring off their young. They usually remain in this locality, which is called the crowing area.

The *second* movement or series of movements comes when haying operations lay the fields bare and when the females with their young are forced to move out. They usually come back with the growth of the second crop, however. This series of movements continues until they are finally forced into the grain and corn on the final cutting.

The *third* movement comes with the combined harvest and hunting season when the pheasants seek dense cover as is available.

Numerous observations by the writer of winter concentrations show they tend to spread rather uniformly in the spring, therefore we do not find spring, summer and fall concentrations like those of the winter period.

The above illustrates the general movements which we must consider throughout the year, but there are certain dangers connected with each. These are:

1. The natural crowing areas which may occur on 640 acres of general farm territory may number only 10, or one to 64 acres. This means that the mates of only one cock will nest on each 64 acres, while the winter cover perhaps took care of three times this number of birds. Therefore, two-thirds of the winter population might be forced to leave that section to find suitable crowing and nesting areas.

2. There is the possible danger that birds may be forced to select sites for their nests in unsuitable places, where the early nests would be destroyed by the spring floods, and the later nests would be subject to destruction by mowing machines, or the nests might be placed in sites providing insufficient cover to protect them from crows.

3. Flocks well established in their territory may be driven out of the area during the haying season never to return, and thus may be lost through improper provision of cover.

4. Flocks left on an area with a minimum cover to protect them might fall victims to predators which would not develop a taste for game birds except through an unfortunate condition which left the birds frequently exposed.

5. After the grain and corn have been cut in the fall, birds are forced to find other protection such as marsh or other herbaceous cover, and they require lanes of cover leading from the stubble and cornfields to such protective cover. If these are not provided they may leave the area entirely and take up winter quarters elsewhere.

6. During the hunting season it is desirable to take advantage of the natural segregation which occurs. The females seem to seek the cover ahead of the cocks, which are more frequently found along fencerows and brushy areas. We must develop an abundance of cover all over the areas, allowing for sections where the cocks may be hunted, and conserving at least a part of the marshes and other winter cover as protected areas where the hens may remain unmolested. Such a system would greatly intensify the sport of pheasant hunting by adding the expectancy factor which is so desirable.

So much for the control of the seasonable movements of the pheasants. Keep in mind that to a considerable degree cottontails, bobwhites and insectivorous birds will also be assisted by such methods.

Food and cover must be balanced throughout the year if birds are to be maintained in anything like maximum abundance. An abundance of food may actually prove a detriment in a program of management if suitable winter and spring cover is not available, for an abundant supply of fall food may cause the birds to become settled in an inadequate cover where their exposure may cause suffering and heavy losses. If winter cover and food are provided without suitable spring food and cover, then the birds may be lost to the area before the young are produced.

The pheasant is a bird which follows a rather fixed routine and usually his route for the day is along byways provided with suitable concealment from enemies and shelter from storm and wind. It is usually only when forced through urge of hunger that pheasants leave their sheltered paths. Therefore, food should be made available along their natural routes, or special byways should be prepared which provide both food and cover.

A series of foods should be afforded them in order to meet the demands of early fall, mid-winter, and finally spring, for the birds accustomed to a certain route should not be forced from it.

When artificial feeding must be resorted to, it is probably advisable that the establishment of feeding stations should be based upon a knowledge of the route followed by the birds, and several stations should then be placed along their paths, rather than force the birds into new positions not particularly adapted to their safety.

The pheasant is a bird which seems to demand and to take a great variety of foods, and daily travels long distances during good weather to obtain this variety. Therefore, it would seem advisable to provide a variety of planted foods, dispersed over a considerable area, rather than provide an abundance of food of one kind in any one place. It is certain that formulating a plan to meet requirements of the pheasant, and especially the establishment of an ideal area on agricultural land, is exceedingly involved. Probably the ideal can only be approached. It must be remembered at all times that pheasants are creatures that do best on our best farm lands and are not adapted to regions of the state where the soils are in the poorer classes.

The following vines along fencerows and other suitable places are of use in providing food and cover: nightshade, bittersweet, wild grape woodbine, and honeysuckle.

Many of the following wild shrubs provide food and cover during various times of the year: wild rose, sumac, elderberry hazlenut, the dogwoods (panicled and red osier), nannyberry, interberry and others. Trees are also beneficial for cover and food. Young evergreen plantings make good cover when in small blocks.

Low-growing deciduous trees like flowering crab, mulberry, flowering dogwood, serviceberry, hawthorne, and others provide foods in season.

Nut trees such as oak, beech, butternut, black walnut and hickory are desirable.

Fruit trees such as apple, cherry and plum also provide food.

The following seed-producing herbaceous plants (weeds) provide food for the pheasant and quail: ragweed, foxtail, bindweed, smartweed, pigweed, burdock, and many others are used.

Most any cultivated crop produces in har-

(Continued on page 25)



Triple "point."



"Whirling in between buildings on the hill."

CITY SLICKERS

Country-bred Americans Abandon the Woods for the Big Towns

By JACOB BATES ABBOTT

Illustrations by the Author

YOU remember the popular song of the last war which began: "Howya gonna keep 'em down on the farm after they've seen Paree?" This academic question seems to apply to several varieties of wildlife which persist in living around metropolitan areas. Strangely enough, too, some of these species are among the rarer and wilder of our native birds: duck hawks, sparrow hawks, barn owls, nighthawks, gallinules, least bitterns and grebes.

What do you think of hawks nesting in a broken gutter atop a building at one of the busiest intersections of downtown Boston? Of the shy and seldom-seen Florida gallinules and least bitterns nesting in a muddy slough, about as large as the shadow cast by a freight car, within the sprawling city limits of Philadelphia, practically in the yards of one of the largest and most active power plants in the city?

I suppose the classic example of wildlife in the city occurred when a returned reveller arose shakily one morning and, holding his head and groaning pitifully, went to the window to see if the day was worth living through. As he looked out his eyes bulged with horror and a wild moan escaped his lips. There was an elephant in his back yard! Spasmodically shutting his eyes to black out this awful vision, he groped for his clothes and rushed out the front door to sign the pledge. Later in the day he discovered, to his disgust, that a circus train had been derailed near town, that a number of animals had escaped and that there really WAS an elephant in his yard. I believe, though, that the pledge held—he had been badly frightened.

Lucky for him that he had not the experience of a South Philadelphia lady of a few years ago. It was early spring and she had gone out to her tiny back yard to do a bit of raking. To her infinite surprise (and, I imagine, considerable fright) she saw a large snake occupying most of the yard. It looked like a boa constrictor to her, but they are hardy folk in South Philly. Gripping her rake, she courageously beat the life out of this serpent which had invaded her Eden. The story got in the papers, naturalists investigated and it proved to be a five and a half foot pine snake, whose northern range should be the pine barrens of south-central Jersey. How it got to South Philadelphia no one knows, but it is now preserved for posterity, well-pickled in alcohol, among the archives of the Academy of Natural Sciences in Philadelphia.

Philohela minor, that whistling-winged bird of mystery—even his name breathes the air of the wildest wet woodlands— is one of the least understood of our game birds. The woodcock's nuptial sky dance, a dark, spiralling silhouette against the fading orange of the evening sky is a sight long to be remembered. Now why should one of these timberdoodles decide to fly up Beacon Street in Boston one early evening, whirling in between buildings on the hill? True the Somerset Club was near, but within those hallowed walls woodcock were served on platters rather than greeted as visitors. If you think that the somnolent calm of Beacon Street may have been reminiscent of quiet woods, let's get closer to the city's center. What about the woodcock that was seen spiralling in and out of Bromfield Street from the Old Granary Burying Ground? This is adjacent to Boston's most bustling shopping district. And these same long-billed timber-bugs have been noticed flying against shop windows on Fifth and Madison Avenues in New York. Here you have one of the woodland's shyest residents actually shopping (if I may be permitted) on a couple of the most crowded streets in America. How come? I can't answer it, but the facts are recorded.

A pair of fish crows, which should have been down along the Jersey coast, nested and reared young in the Parkway opposite the Academy of Sciences in Philadelphia a few years ago. This parkway is one of the main arteries for motor traffic into the city and thousands of cars use it daily. Again,



"Red fox captured in a tree."

how come? Certainly those crows had free choice of a homesite. They must have PREFERRED urban dwelling.

The duck hawk, black-mustached pirate of the skies, and one of the wildest and most rarely seen of our raptores, nesting usually on some inaccessible cliff remote from man's habitation, still has its home in the Palisades of the Hudson a few miles from Manhattan. It often appears in New York City, slashing through the flocks of pigeons which infest City Hall. Imagine this buccaneer of the wilderness sweeping a few hundred feet over the roaring maelstrom of metropolitan traffic.

A year or so ago one of these falcons lived royally on the City Hall pigeons in Philadelphia. He became so well-known that he was photographed on a building ledge by a Bulletin newsman and his portrait made the front page of the second section of the largest evening newspaper in America. (advt.)

I saw an adult peregrine wheeling above the spire of the Church of the Advent in Boston a few falls ago—a splendid, scimitar-shaped silhouette with the buff and black barring distinct under the blue October sky.

It is strongly suspected that a pair of duck hawks nested high in the superstructure of a Harrisburg church early last spring. This year the suspicion will be confirmed and, if true, may be the first recorded nesting of these bold falcons actually within the limits of a big city.

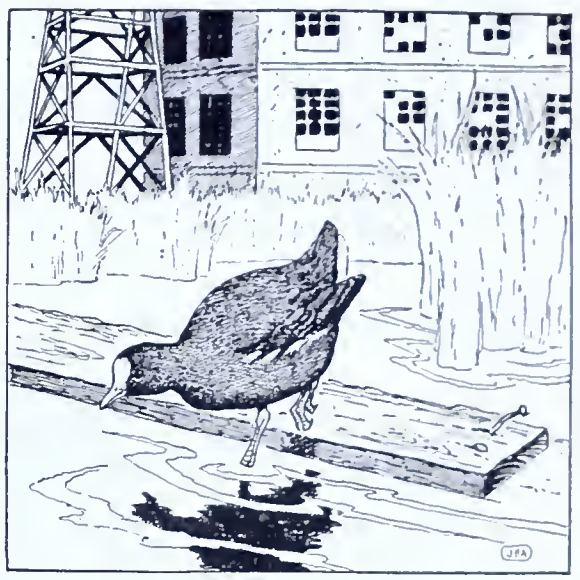
Just to give a couple of instances of citified barn owls I refer you to page 16 of the December 1944 issue of GAME NEWS and to the fact that a pair nested for several years in one of the government buildings in Washington.

Although I had studied and chased birds in the field for more than ten years it was only seven years ago in March that I saw my first barred owl; and I was wet to the waist from plowing through an icy Massachusetts swamp to accomplish this. Yet recently one of the editors of a Boston sportsmen's magazine was strolling up the middle walk of that city's Commonwealth Avenue, thinking about whatever editors do think about, when he was awakened by raucously scolding crows. He looked up and saw the four foot wing spread of a barred owl as it took off from a bare elm and flapped slowly up the street!

1916 was twenty-nine years ago and American egrets were a great deal more rare then in the north than they are now. They had been nearly exterminated on their Florida and Louisiana breeding grounds by plume hunters until the Audubon Society stepped in and, with the hardly-won aid of Federal legislation and of resident wardens, saved the remnants of the beautiful white herons. Their wraith-like beauty exhales the very essence of the cypress swamps and tropical lagoons which are their home. Because, through protection, egrets have tremendously increased and extended their range northward they are now not uncommon sights along Pennsylvania and New Jersey waterways. But in 1916 an American egret north of the Carolinas was startling. Imagine, if you will then, three of these ghostly wanderers from the southland calmly living for several days near a New York City subway station! In July of that year three egrets appeared in a small swamp near the Van Courtlandt Park subway entrance and, undaunted, were viewed by crowds. They became accustomed to the roar of traffic and were eagerly photographed by wondering ornithologists.

It seemed a jest of nature that these rarest of avian stragglers to our northern states should stand around for days close to hurtling trucks and taxis and thousands of hurrying commuters.

Although newspaper articles are, generally speaking, notoriously inaccurate when reporting nature items (viz: eagles carrying off babies after battling parents, etc.) here are a few records which have been carefully checked.



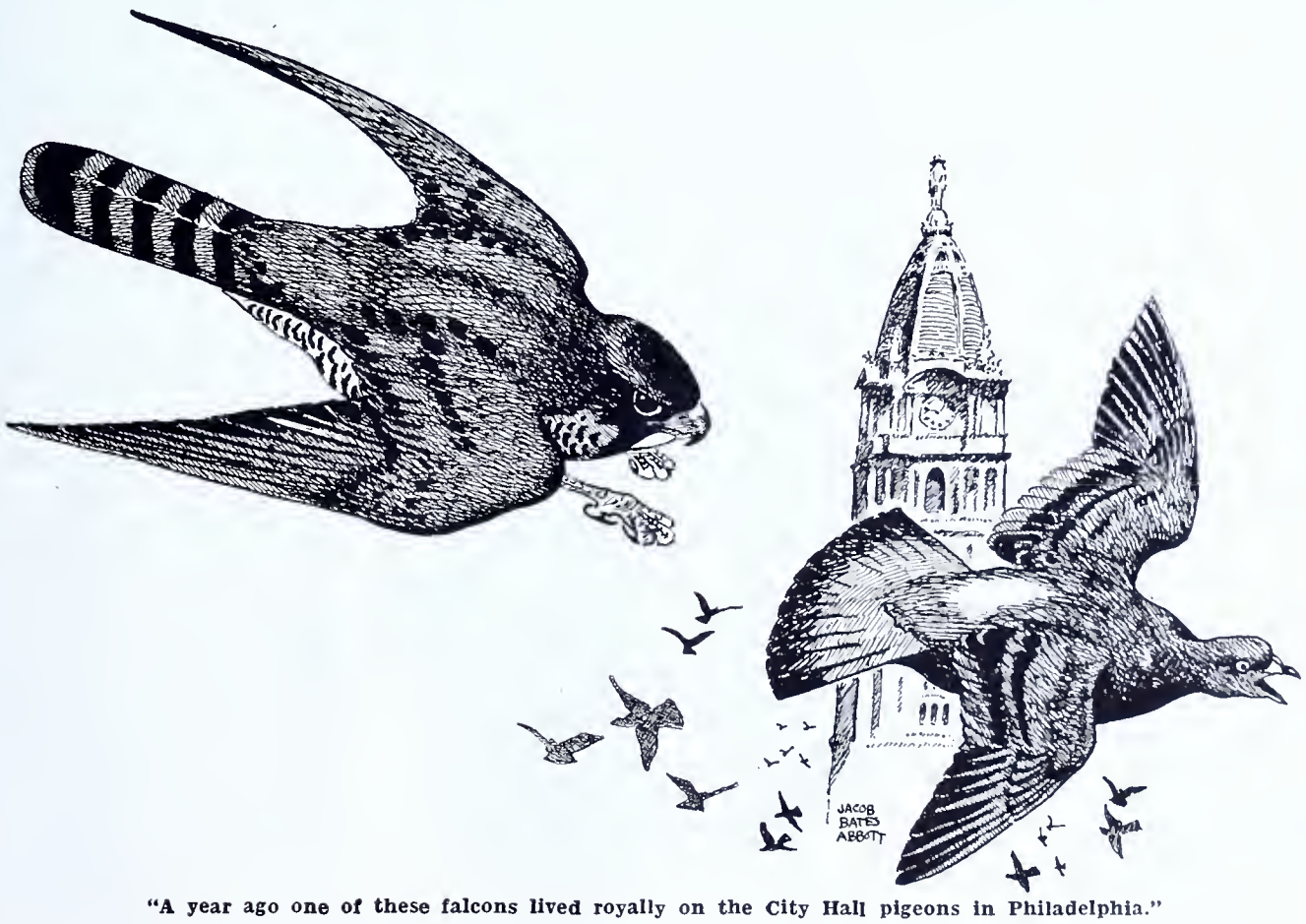
"The shy Florida Gallinule nesting within a muddy slough within the city limits."

Hollywood, 1931—Baby Quail Halt Rehearsal; Mother Pursues Youngsters Who Fall On Stage of Pilgrimage Play.

"Distress of an alarmed feathered mother yesterday temporarily broke up a rehearsal of the Pilgrimage Play in its picturesque theatre in Hollywood. Four tiny baby quail, so newly hatched their feathers were still moist, fell from their nest to the stage and the mother bird came to their rescue with frantic calls of distress. The players halted rehearsal while one of them replaced the chicks in the nest."—*Los Angeles Times.*

Lynn, Mass., Aug., 1936—Exhausted buck deer rescued by two fishermen as it was swimming between Lynn Harbor and Nahant.

(Continued on page 32)



"A year ago one of these falcons lived royally on the City Hall pigeons in Philadelphia."



Photos courtesy U. S. Fish and Wildlife Service.
The seal trade is dependent upon a seasonal migration.

THE MYSTERY OF MIGRATION

WHY DOES one bird fly from the Arctic to the Antarctic and back again every year—a distance almost equal to that of the earth's circumference—while another spends its whole life around a small copse, never venturing more than a few yards beyond its confines? Why do birds set out from New Zealand acrosss hundreds of miles of landless ocean and, after spending a few months in Australia, fly all the way back again? How do golden plover from Alaska find their way every year to the tiny islands of Hawaii in the limitless Pacific? What induces eels, after years of complacent puttering in European ponds and streams, to change their color, go down to the sea and swim thousands of miles across the Atlantic to lay their eggs. and, still more baffling, why should their tiny, fragile offspring spend three years struggling back along the same hazardous path while billions drop by the wayside?

The whole business of migration is one gigantic question—one of the greatest in nature. It is even a question as to whether we know the answer, for we cannot be sure that all the incredible facts we have now gathered about this extraordinary phenomenon add up to an explanation. The migration of animals has been observed by man for thousands of years. Early hieroglyphic writings of ancient Egypt record the seasonal arrival of the cranes, and the Greeks frequently chirrup in their odes about the sudden comings and goings of the swallows. Ancient Indian literature notes the disappearance of many creatures at the onset of the summer heat, and the Romans added their apparently logical, but totally inaccurate, explanations of these periodic disappearances of wild life.

The Romans started many fallacies about migration—fallacies which persisted until recent times, and even still persist in out-of-the-way places. The ancients had a simple, peasant understanding of nature, but the Romans, and, after them, our own ancestors, with a growing interest in the complexities of existence, resorted to quite unnecessarily fantastic interpretations of what they saw. Before the rebirth of science two centuries ago, the western world still believed that swallows hibernated in the mud at the bottom of lakes. It took many years to convince people otherwise, as is demonstrated by quite recent testimony asserting that swallows were actually found in cakes of mud.

After modern scientific investigation had shown that the birds which disappear from northern climes in the fall go to the tropics, and that migration is a natural habit common to a great part of the animal world, a confusion of quite another kind arose. All over the world, men had from time to time encountered vast armies of animals advancing across the face of the earth in countless millions, often without apparent cause. Many of these mass movements were of such proportions as seriously to interfere with man's way of life.

The commonest example is probably the locust, a perennial scourge in many warmer lands, which has alarmed and mystified humanity since the dawn of history. One swarm which was scientifically investigated in the Red Sea covered an area of 2,000 square miles and the estimated weight of the insects that composed it—worked out at an average of one sixteenth of an ounce per insect—amounted to 42,850,000,000 tons. Yet another, even larger swarm passed over exactly the same route next day, the combined swarms said to have totaled more than the weight of Manhattan Island above sea level.

Other mass movements, though less frequent, are almost as well known. In the

north of Canada and in Norway, vast hosts of little, almost tailless, ratlike animals known as lemmings, pour down from the barren uplands from time to time and, after crossing the coastal plains, plunge into the sea and disappear. In South Africa, herds of delicate little antelopes known as springbok, pressed shoulder to shoulder and reaching in all directions as far as the eye can see, suddenly make their appearance and likewise plunge to their destruction in the sea. These unexpected eruptions of animal life occur in almost every country. I once walked for an hour through a continuous carpet of little hopping frogs in the grass fields of West Africa, and, while living in the jungles of South America, we became used to a never-ending succession of swarms of different insects, each lasting but a few hours or a few days. If you refer to back issues of the daily papers, you will see that hardly a summer season passes without some swarm of insects being reported from one part or another of greater New York. Last year, Brooklyn had two—first it was green flies, that appeared from nowhere; and then it was huge cockroaches with faces like Tojo, that appeared out of drains.

Such phenomenal appearances of animals should properly be described as emigrations. They arise from different causes, follow a different course and end in a manner that is absolutely contrary to that of migration. The difference is between life and death, for migration is designed to make possible the continuation of the species, while emigration invariably ends in total extinction of the hordes. Emigration is, in fact, mass suicide. Yet there are things in common between these two contrary marvels—features that must be understood before any attempt to explain migration can be made.

Scientists had long noted a certain periodicity in the occurrence of the Norwegian "lemming years," as they are called, and while they were investigating this fact, several most unexpected and, at first, inexplicable things came to light. The lemmings live in distinct colonies on barren mountain uplands above the tree line, where the vegetation is composed of stunted herbage, grasses and lichens. The woods below are inhabited by another kind of lemming, and the species keep strictly to their own territory.

Every so many years a great increase is noted in the number of lemmings in one of the colonies, and concurrent with this increase the little animals, which are usually the timidest of creatures, become rather bold and fearless. They begin to produce larger litters of young at shorter intervals and throughout a longer period of the year. As a result, the whole population increases progressively, but, strangely enough, surrounding colonies do not do so; nor do the woodland lemmings close oy. Then another most unexpected thing occurs.

The animals that prey on the lemmings also begin to increase in numbers—owls, martens, weasels and hawks—and they, too, become bolder and more voracious. The whole process goes on until there is hardly standing room for the animals, when the multitudes begin to spill over into the woodlands—a land quite unsuited to the species. The expanding colony never invades the territory of surrounding lemmings of their own

By Ivan T. Sanderson

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kind; they only move into that of the wood lemmings, and once the dam has burst, the hosts pour forth and down the mountainside, followed by swarms of enemies that prey on them ceaselessly. Then on they go, not in columns, but as a vast moving blanket that creeps across the earth.

The lemmings may take two or three years to reach the western coast of Norway, according to the territory in which the swarm originates, while all the time they are devoured by the thousands, die in millions from a fever contracted by drinking water that they have fouled, are drowned in billions crossing rivers and flords or simply wilt away from starvation. Those that reach the sea press on, swimming unthinkingly out into the Atlantic to perish. It is a mass hysteria; there is no turning back. These timid, retiring animals have lost all their natural sagacity. And all the time they keep breeding—litter follows litter.

Now it was discovered that sometimes these migrating lemmings reach isolated plateaus that are suitable to them and that parts of the swarm settle down there to colonize the territory. There seemed to be nothing to prevent them from establishing themselves successfully for all time. But here came a big surprise, for it was found that always in a few years these colonies became totally extinct. Why, the investigators asked themselves, should these lemmings suddenly start to breed so madly and why should all those that emigrated either commit mass suicide or just die out, while those few left behind survived and in time gave rise to another swarm? And while looking for an answer to this question they found the first and perhaps the most important key to the whole mystery of animal movements.

An important part of the investigations into this fascinating problem called for anatomical examinations of the animals themselves at all phases of the swarming. It was discovered that the internal sexual organs,



Lemmings live in colonies.

or gonads, underwent extraordinary changes. What is more, the whole animal changed anatomically in accordance with its temperament and its increased vigor. Puzzling over this further discovery, the investigators suggested, and later proved in a most dramatic manner, that something the lemmings had eaten had changed their whole metabolism. They surmised that this unknown substance must be indestructible and stored in the body of the lemmings, whence it could be transmitted to their offspring and even to the animals that fed upon them. For a time, this substance remained a scientific *X* which exactly fitted all the known facts of the case. Then vitamins were discovered.

At once it was recognized that these temporarily indestructible substances exactly fitted the requirements of *X*. A search began for a source of some such vitamin, and it was not long before one was found in the tender lichens and other greenery that lay dormant under the winter snows and which burst into a riot of growth with the arrival of the spring. This vitamin was found to be in a minute green alga which, together with a fungus, forms the lichen so prominent in the flora of those regions. The lemmings feed on this lichen after their long hibernation, and the vitamin is stored in their bodies. Furthermore, it was later discovered that a hormone secreted by the anterior pituitary gland does, in fact, stimulate the gonads, thus producing increased fertility. Here, then, was a concrete and understandable cause of this phenomenon, and one which later led also to an explanation of its effects.

The source of this exceptional, almost artificial stimulant to breeding activity was left behind when the animals emigrated. They carried the vitamin with them in their bodies. In the case of those that found a haven in some suitable environment, it became disseminated through overuse and, there being no supply at hand to replenish it, it became less and less potent. The animals lost their fertility and, being utterly exhausted, died out, for this stimulant is like a drug that squeezes the last ounce of vitality out of the animals. This is the most vital fact, and one that unlocks further doors leading to the secret not only of emigration but also of migration. This may be the primary cause of all mass emigrations and of their terrible conclusions, though the stimulant need not necessarily be the same. The mass hysteria and mental instability, as well as the craze to breed often noted among emigrating swarms of animals, are probably due to this stimulant, but it is a simple lack of food or water that actually prompts the animals to start the trek. Once moving, however, they cannot stop, nor do they do so until some tragedy overpowers them.

Migration is an altogether different matter. It is an orderly and regular behavior pattern, and yet the very causes that induce it may be the same as those which prompt this mass suicide and exhaustion, as we shall see. The difference between emigration and migration is simple to comprehend. Whereas emigration always leads to the disappearance of the animals, in migration there is always a return to the point of origin of the journey, either by the very individuals that set out or at least by their offspring.

(Continued on page 26)

RATIONS FOR BOBWHITE QUAIL*

W. J. Stadelman,† E. W. Callenbach, R. R. Murphy, and R. V. Boucher‡

A Report on Some Nutritional Experiments

PRACTICAL skill, sometimes designated art, is and probably will continue to be *the* factor of paramount importance in attempts of man to propagate living things. Frequently little or no scientific information is needed for small scale production. However, when propagation is attempted as a commercial venture so many problems are encountered that the substitution of facts for opinionated information becomes a practical necessity.

In recent years large scale propagation of bobwhite quail has been undertaken on private and public game farms. This has resulted in (1) an accentuation of old difficulties, and (2) the appearance and recognition of a host of new troubles associated with the unnatural conditions accompanying large concentrations of populations in restricted quarters. Specific environmental problems encountered include provision of proper and adequate nutrition, shelter, and sanitation, with adaptation of rearing procedures to the disposition and instincts of the species. This paper is concerned with nutrition.

Very little factual information on the dietary requirements of artificially reared bobwhite quail is available. LeCompte (1931), reporting early work in Maryland, itemized a feeding schedule which included: First feeding at 24 hours; clabbered milk throughout rearing period; closed formula commercial starting and growing mashes (whether chicken, turkey, pheasant, or quail not stated); green feed; sand and grit; and a commercial grain mixture (closed formula). A year later Handley (1932) reported that W. B. Coleman had successfully reared quail by mash feeding without either clabber or boiled egg. No mention was made of green feed or other dietary supplements. At the same time MacNamara (1932) reported success in rearing quail on a mash ration without clabber or boiled egg. He did not indicate whether supplementary feeding of green feed or other materials was practiced. MacNamara's starter mashes had calculated analyses of 17.30 and 19.15 per cent digestible crude protein. Growing mashes, used in conjunction with the starters, were calculated to contain 19.20 and 20.42 per cent digestible crude protein. It should be emphasized that these protein levels are not for crude protein but for *digestible* crude protein, the digestibility figures being based on investigations involving four-footed domestic animals and not game birds or more nearly related domesticated poultry. A year later MacNamara (1933) pointed out that some quail breeders were using mashes "having a protein content from 20 to almost 30 per cent."

Sometime later Petty (1934) reported excellent results from the use of several closed formula commercial chick, turkey, and quail mashes with and without supplements of lettuce or fermented alfalfa meal. Whether other supplementary feeds or special feeding procedures were involved in Petty's work is not clear.

In none of the publications referred to has any specific information relative to formulae been given. Likewise, with the exception of LeCompte's work, it is not known how many or what kinds of nutritional supplementation and modification or changes in the details of rearing management during the rearing season were involved. These facts are important for, as indicated later under Experimental Procedure, quail raisers are apparently accustomed to all sorts of additions and variations in diets and mechanics of management, any or all of which are more or less disregarded in verbal or written discussions but which may vitally influence results achieved and a correct interpretation of differences between groups.

The writers have found only three publications reporting definite experiments in bobwhite quail nutrition. Norris (1935) is credited with concluding that "27 per cent of protein was necessary for the most rapid growth of the chicks of this species. However, the difference between the results obtained at the 27 per cent level of protein and the 24 per cent level of protein was not great." Seven years later Nestler and associates (1942) published composite results of four experiments on protein requirements. Their report stated that a 28 per cent level of protein intake gave best general results during a rearing period of 10 weeks. An interesting point emphasized was that 45 per cent mortality during the rearing period is considered normal by bobwhite breeders. In later work, Nestler et al. (1944) were able with small groups of chicks, to reduce six-week mortality to 18 and 19 per cent on three diets and 10 weeks mortality to 22 and 20 per cent on two of the same diets.

Experimental Procedure

The two experiments described herein were conducted at the Pennsylvania Game Commission's Fisher State Game Farm, Schwenksville, Pa. Since the farm is located 180 miles from the Pennsylvania State College, experimental observations were limited to bi-weekly visits by the writers. A careful record of chick behavior, management procedures and any occurrences considered to be unusual or of experimental interest was made for each experimental group by the caretaker or game farm superintendent. Growth data, regular periodic observations of environmental conditions, and feed consumption data were obtained during the scheduled visits of the writers.



Figure 1. Quail brooder house with attached wire-floored outside runs.

* Paper No. 44 from the Pennsylvania Cooperative Wildlife Research Unit; Fish and Wildlife Service (U. S. Department of the Interior), The Pennsylvania State College, Pennsylvania Game Commission, and the American Wildlife Institute Cooperating. Paper No. 1266 journal series, of the Pennsylvania Agricultural Experiment Station.

† Graduate Assistant in Poultry Husbandry from the Pennsylvania Cooperative Wildlife Research Unit.

‡ Professor of Poultry Husbandry, Assistant Professor of Poultry Husbandry, and Professor of Agricultural and Biological Chemistry, respectively.

The assistance of V. T. Warfel, Superintendent of the Fisher State Game Farm, Schwenksville, and his assistants in the prosecution of these experiments is gratefully acknowledged.

As intimated in the review of literature, bobwhite quail management usually includes many procedures not always discussed completely in reports of rearing results. Consequently, certain practices, taken for granted in the standard quail rearing procedure at the state game farm, but inimical to most accurate experimentation, were placed in effect without previous knowledge or formal approval of the writers. Since, with a few exceptions as noted, the unscheduled procedures were constant for all pens, the comparative data assembled are completely valid for accurate interpretation. However, from the standpoint of practical application of results, the best feeding and management findings must remain too complicated and too cumbersome for greatest satisfaction. It is hoped that further experiments may result in the solution of certain critical problems and greatly simplify rearing technique.

Both experiments were conducted in the long quail brooder house illustrated in Figure 1. Each wing, on either side of a central feed room, is 56 feet long, 20 feet deep and 8 feet high at the walls. Each inside brooder pen is 3′ x 7′ x 12″, the area occupied by the electric heating unit being 3′ x 3′ x 12″. Each outside run, as shown in the illustration, is 3′ x 8′ x 12″.

Inside pen floors are 3-mesh-per-inch hardware cloth supported over metal droppings pans, kept bedded down with shavings. The outside runs are floored with 2-mesh-per-inch hardware cloth supported over droppings pans not bedded but washed clean at frequent intervals. Replicate electric heating units and the same kinds, sizes, and numbers of feeders, water fountains, etc., were used for all groups of chicks. A repsentative complement of equipment for a group of chicks is shown in Figures 2 and 3.

Experiment One. Twenty-two groups of 100 12-hour-old bobwhite quail chicks each were placed in brooding quarters as described, on the afternoon of May 28, 1942. For purposes of convenience, duplicate groups located on opposite sides of the central brooder house alleyway were designated a and b. Mash formulae are given in Table 1. Identification of groups for number, mash mixture fed, and chemical composition, by analysis, of the mash mixtures is shown in Table 2. The standard feeding procedure was as follows:

Maxco, a 20 per cent protein commercial mixture of cooked wheat flour and 68 per cent protein meat scraps, was mixed in the ratio of 8:1 with cod liver oil having a guaranteed potency of 200 A.O.A.C. chick units of Vitamin D and 1500 U.S.P. units of Vitamin A per gram of oil. The Maxco and oil were mixed thoroughly, scalded with water, and dried to a crumbly mass by the addition of a sufficient quantity of the mash mixture fed to the particular group for which the Maxco was intended. Decreasing quantities of Maxco and increasing quantities of mash were added daily until at two weeks the Maxco was discontinued entirely, the dry mash alone being available thereafter. The Maxco mixture was fed 2 to 4 times daily, the number of feedings per day being decreased until stopped completely when the quail were two weeks old. The Maxco was used chiefly because its texture and appearance attracts young chicks and stimulates feed consumption. It also acts as a vehicle for the Vitamin D oil until mash consumption will take care of the Vitamin D requirement of the chicks.

The appropriate group mash mixture was available constantly in small flat pans. On and after the second day ground lettuce, and later leaves of lettuce, was fed. On and after June 5, when the quail were 8 days old, charcoal was sprinkled on the mash whenever feed pans were filled. The chicks were flushed with epsom salts on June 10, 16, and 29 because several groups showed symptoms of constipation. All groups were flushed to maintain uniformity of management procedure except that on June 10, through an oversight, groups 11a and 11b were not treated. The epsom salts solution used was made up of 1 tablespoonful of the salts to each 1 gallon of water.

Except as noted later in the discussion of results, feeding and other management procedures were constant for all pens. Thus, while the general management system was rather complex, the only major environmental variable was the difference in mash mixture provided.

Experiment Two. Twenty-two hundred day-old chicks divided into groups as in Experiment One were placed in the same brooding quarters on July 16, 1942. The mash mixtures fed, in part duplicates of several used in Experiment One, were based largely upon observations made during the earlier test and the results of previous work with Ring-necked pheasants. Table 4 gives the mash formulae used and Table 5 shows their chemical composition. As indicated in this table (groups 20 and 21), an attempt was made to eliminate the Maxco moist mash feeding during the early life of the chicks. Except as indicated otherwise, all groups were fed in a manner similar to those in the first experiment. Epsom salts was fed on July 31.

Results and Discussion

An indicated under Experimental Procedure, all treatments were run in duplicate. Since careful examination of tabulated results showed few important differences between the duplicate groups, the data as presented here are for combined groups considered as single units. Measurements used to evaluate the rations fed were: (1) growth, (2) feed usage (3) mortality and (4) quality of birds reared.

Experiment One. Results for this experiment are summarized in Table 3. On the basis of weights at 6 weeks, groups, 7, 6, 11, and 10 in the order named were distinctly superior. The same groups, rearranged with 11 and 10 ahead of 6 and 7, experienced, in order, the lowest mortality and therefore best livability. In feed usage, groups 6 and 7 required virtually the same and the largest amounts. Groups 10 and 11 used far less feed than might be expected in comparison with other groups. This is easily explained.

The mashes fed to groups 1 to 8 inclusive were similar in physical structure to usual poultry mashes. Groups 10 and 11 were fed the "kernel" mixtures in which the ingredients were processed to form minute granules. Since shallow open pans and hoppers were used for feeding the mash mixtures (Figure 2), the quail could scratch or dust in them. It was observed that feed wastage, which could not be measured with any degree of accuracy, was quite heavy in the ordinary mash-fed pens and much less in the "kernel"-fed pens. This is a repetition of previous similar experience with pheasants. Because of the feed wastage no indices of feed utilization efficiency were calculated, and the term feed usage is used instead of the more familiar feed consumption. It should be possible, although admittedly difficult because of the small size and great activity of quail, to devise feeders which will greatly reduce feed loss and thus make possible more accurate determination of the nutritive value of mash mixtures. In general, and with the exception of "Kernel"-mixture consumption as noted, the data in Table 3 indicate clearly a close relationship between growth, feed consumption and mortality. They also show conclusively that mash mixtures 6, 7, 10, and 11 fed to groups similarly numbered were the best mixtures used, with little to choose among them. It may be mentioned in passing that both open formula mash mixtures were sufficiently lower in cost than the "kernels" to more than compensate for the feed wastage, and therefore greater feed usage, described.

(Continued on page 28)

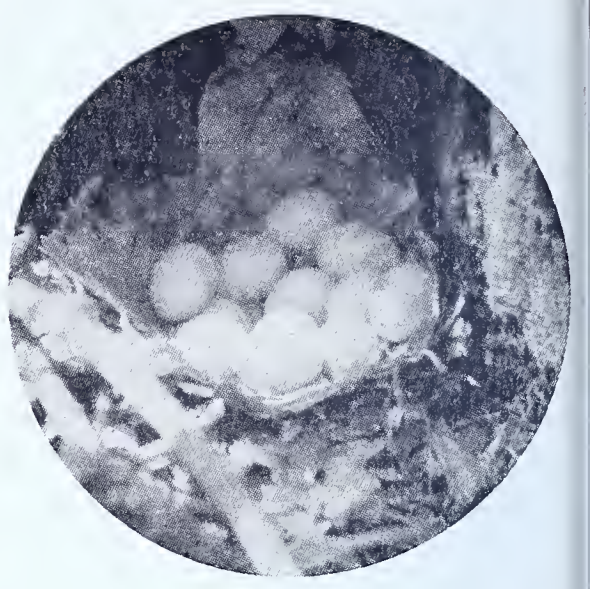


Figure 2. Feeding and watering equipment used for each group of 100 quail chicks.



Photo W. L. R. Drake

WHAT'S HAPPENING TO THE GROUSE?



By J. C. GILFORD*

In the Following Discussion the Author Expresses Only His Own Opinion, Based on Personal Observations

THE 1944 Small Game Season is now in the books, but I am certain that conditions relating to the small game supply will be the topic of discussion for some time, even though the season is now history.

Each individual or sportsman prefers to hunt certain game and that is as it should be. If we were all rabbit hunters or squirrel hunters, it would be most difficult for any plan or policy to provide adequately. I mention this because I do not want to appear narrow on one topic and thereby lose sight of other sportsmen's interests.

My personal like and first love is the Ruffed Grouse, and it follows naturally that my deductions and observations were centered on this bird.

I have heard from numerous sportsmen and from some of the best authorities that grouse were very scarce. Some prefer to use the term spotty. Regardless of the term selected, in my opinion the number of grouse in the forests at the beginning of the 1944 season was less than the number left in the forests at the close of the 1943 season. I admit, however, that in a given relatively small area there were times when a large number of grouse were found, but in every instance this condition was confined to an area entirely too small to be worthy of mention compared with conditions several years previous when the birds were abundant throughout their entire range in Pennsylvania.

By reminiscing a little, and I think we should for the sake of comparison and by comparison, perhaps we can find out what the score is before it is too late. For example, back in 1935 we had a peak year in ruffed grouse. From there on they took a decided plunge, then gradually but definitely started on the upward trend in 1937, the increase becoming more noticeable before reaching the peak in 1942.

The number of grouse left in the forest at the close of the 1942 season was most gratifying, but I sincerely believe there were less on the opening day of the 1943 season. Notwithstanding, there was a good hatching season and young birds were reared to maturity. Proof of this statement is that a good percentage of the grouse shot during the 1943 season were young birds.

That raises a very pointed question. What happened to the numerous old birds that were left at the close of the 1942 season that were conspicuous by their absence the opening of the 1943 season? There have been many logical reasons advanced, and I am not ready to say that they are without foundation.

However, despite this continual decline there was still adequate seed stock left at the close of the 1943 season. Bear in mind though that the number of gunners was considerably below the average for reasons known to all of us, which may, probably did, account for that factor. Regardless, with a reasonable hatching season there should have been sufficient grouse to warrant a good season for 1944. I am sorry to say this was not true as I analyzed the picture. There are many ardent grouse hunters who look forward each year to that choice sport who are convinced, and have so expressed themselves, that the Game Commission should close the season in 1945. There also are those who take the position that with a good breeding season the remaining stock will afford good shooting. I am of the opinion that this may be wishful thinking. I regard the responsibility of the Game Commission in the category of a trust—namely that it has no right to gamble with the principal. For an illustration suppose we have an open season on grouse this year coupled with a poor hatching this spring. Would we not be in much more serious trouble then than we were at the close of 1944? On the other hand, suppose we do have an exceptionally good hatching season. A closed season would not hurt a thing, and a good hatching season could not possibly bring the grouse population to within 50 percent of where it was at its peak. If we are to profit by past history, we would not be fair to our children and ourselves if we were to lend our support to such reasoning without first thinking the problem through. Consider the end!

Remember again that from 1939 to 1942 inclusive, when grouse were abundant over the entire grouse country of the state, the daily bag limit was not increased. Why? The reason, I believe, will be difficult to understand. Certainly the gunner did not materially reduce the grouse population during that period, nevertheless the birds are gone. Why should not the daily bag limit be increased when the grouse population is on the last half of the upward trend of the cycle? If this had been done, I do not think you would hear anything but favorable comment; but to talk of closing the season now, when the birds are scarce, will bring some criticism that may have been averted if the sportsmen had been privileged to enjoy their favorite sport to a greater degree when the supply was ample enough to permit an increase in the daily bag.

Conservation as I understand it is *THE WISE USE OF OUR NATURAL RESOURCES WITH FULL REGARD FOR THOSE THAT FOLLOW.* However, the progress in this respect is lacking terribly compared to other fields in our modern civilization.

In addition to the wonderful sport the ruffed grouse affords, it has been wisely selected as our state game bird. As such we must preserve it for posterity. This reason alone amply justifies reasonable expenditure and sufficient study to avert catastrophes such as befell the passenger pigeon and the heath hen.

If we have hit the bottom of what may be termed a cycle and are now on the up trend, which I think we are as I will try to substantiate a little farther on, would it not be nice to have Pennsylvania forests full of grouse for our boys? I believe that there will be more of them home to enjoy this real sport in '46 than will be in '45.

I do not wish my personal observation on the abundance and scarcity of grouse to be construed by anyone as being absolutely conclusive. In 1942 when the birds were at a peak, we would occasionally shoot some that had a number of lice or flies on them. In the season of '43 these lice or flies were more noticeable and numerous. In '44 very

* Field Division Supervisor, Division "B."

few of the birds I killed had any on them. It is my belief that our grouse are on the upward trend because the flies appear to be on the decrease. In other words I hold these parasites responsible to a large degree for the decrease in the grouse population.

These insects are slightly larger than an ordinary housefly. The body is somewhat smaller but the wings are larger than those of the housefly. They do considerable darting when they fly. The wings are a dirty color resembling the skin of a water snake. The body when full of blood is a bluish color. I do not know definitely, but I do not think the insects occur on the birds in sufficient numbers to weaken them by continual sucking of blood, but rather I believe they may transmit to the grouse disease of some kind in the same manner the mosquito transmits malaria to its victims. I think in this way a large number of our grouse have disappeared, and I would like to suggest something I feel will be preventative in its application, if I am right in my theory.

There are numerous areas on State Game Lands and private lands from which the timber crop has been harvested, and I think it would be a very good policy in the winter months to throw some of these tree tops together in large piles and set them afire, burning at least one pile every three or four hundred feet. The resultant wood ashes would be a wonderful place for the birds to dust. It would still leave ample cover in the forms of tops, and such fires would be inducive to briar growth which produces game food. It is true that the weather eventually would leach the wood ashes out, but would it not be the part of wisdom to add to them perhaps burnt lime or some commercial insecticide. I am sure that this can do no harm if the burning is done in the winter months, and I am just as certain that it will do a lot of good. At least it will give these birds a chance to rid themselves of flies and ticks.

We have heard a lot about the burning of forests, some persons believing it to be the only way to improve small game cover, others believing it a mistake. Still another group believe that controlled burning is the answer. However, I believe the method I suggest would perhaps come the closest to controlled burning. I am going to try it because I believe in it, but even if it is 100% correct, all the work that we can possible do ourselves will not be sufficient to make any material showing one way or another. This is a job for all of the shooting fraternity to pitch in and lend a hand. The need is great enough for all of us and it certainly can't do any harm. FIRE IS A GREAT SERVANT, BUT A HARD MASTER.

I would like to suggest that someone qualified, an expert on insecticides, explore the possibility and advisibility of adding to these ash piles commercial insecticides. The U. S. Department of Agriculture is doing a remarkable job in finding ways to control and exterminate the gypsy moth. The one element being used, apparently in the experimental stage, has proven most satisfactory and complete. Of course, this insecticide is almost impossible to get as it has gone to war along with other good things. But when it is again available why should not its possibilities be fully explored? Perhaps by that time the U. S. Department of Agriculture may have the full answer.

There is still another and that must be considered who are hollering loud and mighty that the fox is responsible for this decrease in small game. I do not wish to be understood as saying that the fox is a vegetarian and will not kill and eat small game, but I do wish to be understood as saying that in my opinion it is a rank mistake to blame the fox for all of the scarcity of small game. The fox is a predator and I know that in some sections that are ideal fox country they were there in abundance, with the scarcity of grouse the foxes in some sections have actually moved on, which would imply that Br'er Reynard is only interested in living where there is an abundance of small game from which to feed upon. This I think is generally true. A fox would much prefer to stay where there is game than where there isn't any.

I am also convinced that the fox spends more time hunting and destroying mice and other rodents in the fields and forests than the hunting of small game. That a piece of small game present itself, his scruples are not such that he will pass it up. I am speaking now of the red fox, and I hope the sportsmen do not make the mistake of blaming all these shortcomings on the fox line. As stated before, I am not a particular friend of the fox, as he is a predator and will kill small game, but I do not think he can be held accountable as the No. 1 enemy of our ruffed grouse. Yet we hear too often the cry, "Fox", and I think we are overlooking the real and genuine cause. Let's control the fox and when we once get him under control, let's keep him there. I mean by control that the red fox could be in sufficient numbers for those individuals who like to hunt or chase them to enjoy their favorite sport. There is room and glory for all if we will but let good sportsmanship prevail. I think it is best to let it be said here that I can see no good in the gray fox. I think that is one thing that is generally rather well understood by all, and for that reason I have made no mention of the gray fox previously.

As you know there has been much headway made at the game farms in producing ringnecks for stocking purposes. In addition to the birds raised at the game farms, there have been on numerous occasions large numbers of birds raised and purchased. These have done well in the true ringneck territory of the state. Without question they have afforded much sport to a large number of gunners that heretofore were perhaps largely grouse shooters, and its believed that the ringneck has absorbed a lot of the gun pressure that would have normally fallen on the grouse. Regardless of this fact, the grouse are on the decrease.

This whole question of small game supply is of such importance that it merits the full consideration of the best minds on conservation. I do not like to use the term cycle because I do not fully understand the extent of the term, but as long as I can think of no better one at the moment, we will have to be content with it. I am very much concerned when the peaks of these cycles come and go, for in my opinion each time we come back to a peak it does not have the same number of birds, but rather there are less each time, and when we hit a low the scarcity is more noticeable. This I think the only logical reason is the continued increase in gunning. Therefore assuming, and I think rightfully so, that the parasites having had no interference and by that reasoning retaining their constancy, I believe by controlling or exterminating them, we can make up the difference amply for the increased gunning pressure.

If we continue along the lines we have heretofore, letting the grouse work out their own problems so to speak, I believe in the not too distant future there will not be sufficient birds at the top of a cycle or peak to recognize it as such. Of course, this con-

(Continued on page 24)



Photo by Delbert Batcheler.

Spot where grouse dusted.

DIGEST OF THE BUSINESS TRANSACTIONS OF THE GAME COMMISSION JANUARY 11, 1945



State Game Farms will be operated at maximum capacity.

FOR the first time in its history, the Game Commission by unanimous consent agreed to make public a digest of its business transactions, using GAME NEWS as the logical medium for this purpose. Accordingly, there follows the highlights of its meeting January 11, 1945.

It might be appropriate also to mention here another new departure which prefaced that meeting.

Recognizing that the expedition and ultimate success of its multiple problems depends largely on the cooperation of many other State Departments, from the Governor's Office down, the Commission invited the Chief Executive and other administrative heads concerned to be its guests at an informal dinner and get-together the evening before, for the purpose of meeting the Members of the Commission and its office and field administrative staffs and to hear briefly about their individual functions and responsibilities.

Ross L. Leffler, President of the Commission, made the necessary introductions all around, beginning with the honored guests which included: George I. Bloom, Secretary to the Governor; James H. Duff, Attorney General, Department of Justice; Dr. A. H. Stewart, Secretary of the Department of Health; James A. Kell, Secretary of the Department of Forests and Waters; Charles A. French, Commissioner of Fisheries; Colonel Richard K. Mellon, Director, Pennsylvania Selective Service; and Dr. Paul L. Cressman, Director, Bureau of Instruction, Department of Public Instruction, and ending with the Commission and its staff. At the conclusion of his remarks the entire group previewed a new motion picture in technicolor, depicting some of the major wildlife problems confronting the Department.

All in all the occasion was highly conducive to a better understanding, not only of the Commission's problems but of those which confront the Departments which have so much to do, either directly or indirectly, in helping facilitate the Commission's numerous and varied programs. Similar gatherings will undoubtedly be held in the future.

The next morning the Commission went into regular session, with all members present as follows: Messrs. Ross L. Leffler, Pittsburgh, President; R. Lamberton, Franklin, Vice-President; Col. Nicholas Biddle, Bethayres; G. I. Phillips, Alexandria; Harold Moltz, Williamsport; Dr. H. E. Kilgus, Brockway; John C. Herman, Dauphin; and Dr. Carl B. Rosenkrans, East Stroudsburg. The minutes of the previous meeting were approved, and under the next order of business Mr. Ross L. Leffler was re-elected president and Mr. Robert Lamberton vice-president for 1945. Seth Gordon was elected secretary of the Commission in addition to his duties as Executive Director.

Administrative and program suggestions represented for consideration some months ago were then discussed and standing committee chairmen submitted progress reports of their studies. One of these, having to do with a new and more extensive program for managing State Game Lands, was approved subject to such revision as further study may necessitate. In essence, the new program will involve more intensive improvement of wildlife habitats and the wise utilization of timber products.

Reaffirmation approval was given to a long contemplated proposal to redistrict the Commonwealth into 150 administrative districts, with all functional activities combined under one field officer in each district regardless of the character of the work to be performed.

The plan also provides for the organization of a specially equipped "flying squadron" whose duties will be to cope with law enforcement and other problems which district officers alone are unable to handle. The personnel of the squadron will be selected from the Commission's group of experienced enrolled field service officers.

A suggestion that competent persons be selected on a competitive basis to act as Assistant Field Division Supervisors was deferred subject to further study, but a proposal providing for the appointment of the proper quota of Deputy Game Protectors for each of the 150 districts was approved with the understanding that each individual shall be required to pass a more comprehensive examination prior to his appointment than in the past. A recommendation providing for a training program for deputies was also adopted.

A more aggressive program of public information was recommended by a newly appointed committee on public relations, consisting of President Ross L. Leffler, Chairman, and Commissioner G. I. Phillips, Vice Chairman. Briefly, the program proposes mat service to weekly newspapers, the preparation of several historical and educational bulletins, the acquisition of desirable supplementary motion pictures, the use of billboards for educational purposes in emergencies, the use of sound motion pictures when the necessary equipment becomes available, the purchase, when available, of a specially designed exhibit truck for use in the remote sections of the Commonwealth, and the promtion of conservation education in the public schools.

The Commission took definite and favorable action on one phase of the last mentioned program by approving the purchase of 2500 introductory sets of conservation education bulletins, entitled "YOUR LAND AND MY LAND," from the National Wildlife Federation (there are four bulletins to a set), to be made available to schools for supplementary reading at $.50 per set. It was further agreed to purchase additional sets as needed to meet the demand, at the best price obtainable. If the plan succeeds the over-all cost to the Commission will be low enough to enable it to handle the project at cost. This is a program in which sportsmen's organizations particularly can assist very materially by encouraging local School Boards to purchase the bulletins.

The Predator Control Committee which has been giving considerable study to this weighty problem recommended that a bounty be placed on the red fox as a control measure whenever and wherever necessary. Various sportsmen's groups submitted petitions also recommending such a bounty. However, the Commission will not take final action on the matter until the meeting when it sets the seasons and bag limits for 1945. In the meantime further studies will be made.

The committee reported that the Commission's field officers made a splendid showing trapping predators and instructing persons in trapping techniques, and that the services of Game Protector Arthur G. Logue as trapping instructor accomplished very beneficial results.

The question of allowing further compensation to field officers for predator work was discussed, and the Executive Director was in-

structed to contact the Department of Justice and the Executive Board to obtain the necessary approval for the payment of such compensation, either as a bounty per animal, a bonus for special extra service, or some other appropriate medium.

The desirability of setting up a plan to help field officers sell furs from predators to the best possible advantage was discussed. Attention was called to the fact that in at least one Division the Supervisor handled such pelts for all of his subordinates, and that in this manner a better average price was obtained for the hides. The possibility of having all such skins pooled and shipped to Harrisburg where all fur buyers might bid on the entire lot was also discussed. The Staff was instructed to explore these suggestions and report at the next meeting.

It is also planned in the near future to develop a suitable reel of motion pictures on all phases of predator control work.

The committee on propagation held a meeting in Harrisburg on January 4, at which time it was recommended that the Commission should propagate all the game it can with safety and that as many game birds as possible be purchased, particularly from Pennsylvania dealers.

The special committee on the Phillips Memorial Arboretum submitted a progress report and Dr. H. E. Kilgus, chairman, said he expected to present, at a hearing of Army Engineers at Ridgway, on January 23, the Commission's views relative to the proposed construction of a large flood control reservoir. This reservoir apparently will flood part of State Game Lands No. 25, in Elk County, a portion of which it was planned to use for the Phillips Memorial. The committee will study the possibilities from all angles and hopes to develop the area agreed upon so that it will also serve as a study laboratory to aid the Commission in its land management program.

Following committee reports, the Commission took up the matter of new business as follows:

Two employess in the Military Service were reinstated as of January 1, 1945 and welcomed back to the organization:

Captain James N. Morton, who was returned to duty in his former position as Chief of the Division of Land Management as of January 1, and Private W. L. R. Drake who will assume his former duties in the Division of Public Information on March 1.

Game Protector Charles C. Brennecke of Altoona will be retired as of March 1, in accordance with the established policy to retire employees at 65 years of age. Mr. Brennecke rendered outstanding service during his twenty-one years with the Commission and as is customary his photograph and record of service will be published in a forthcoming issue.

In an endeavor to again make the hunting licenses available in advance of September 1, the Department of Revenue was asked to immediately place orders for the 1945 licenses and tags, specifying the use of the same fine tag material that was used in 1942. Resident tages will have a peach background with jet black numerals, whereas non-resident will be light green with black numerals.

The Commission was advised that on the basis of preliminary information 580,573 resident and 12,529 non-resident, or a total of 593,102, licenses were issued for the 1944 season, as compared with 570,418 resident and 11,827 non-resident, or a total of 582,245 for 1943. (Later information indicates the total number of licenses issued in 1944 was 604,136—590,180 resident and 13,956 non-resident.)

Preliminary information also indicates that the number of fatal hunting accidents was lower than the previous year. This information will be published as soon as it is completed.

In the January issue the Commission for the first time since it began tabulating Game-Kill Reports released the preliminary kill for 1943, based wholly on the estimates of its field officers.

The Commission discussed at some length the current production problems at the several State Game Farms, the desirability of pre-season releases of game birds, and the placement of contracts immediately with breeders for delivery both next Fall and the following Spring. It was agreed to operate the farms at maximum capacity permitted by food, labor and other conditions. It was also agreed, if possible, to purchase from 15,000 to 20,000 12-week-old pheasants for Fall release, principally in the northern half of the State, during the month of September. From 8,000 to 10,000 birds shall be supplied by the Commission's farms and from 7,000 to 10,000 by Pennsylvania breeders. In addition, from 15,000 to 20,000 adult pheasants shall be made available for release after the close of the 1945 season, also from the Game Farms and private breeders, these birds to be released mostly in the southern half of the State.

It was also agreed to purchase up to 10,000 adult bobwhite quail from private breeders for release next Spring, to supplement birds that can be produced on the Fisher State Game Farm.

The Commission also seriously considered certain requests for refunds and the restoration of hunting licenses and approved three of the former and four of the latter.

It is also approved the seizure of hunting licenses in the field from 34 flagrant violators of the Game Laws during the past season, and at a later date will consider revocation of the hunting and trapping privileges of such persons for longer periods of time.

In the past it has been the Commission's practice to take up for revocation consideration at its July meeting the cases which have accumulated during the year. The Commission agreed in the future to act upon all such cases as rapidly as the records can be compiled, so that those whose licenses are to be revoked will be informed at the earliest practical date. The effective date of such revocations will still be September 1, the opening of the new license year, as has been the practice in the past.

The Commission also restored the hunting and trapping privileges of five persons.

Realizing the important part that soil conservation plays in any land management program, especially in the Farm-Game sec-

(Continued on page 25)



Bill Fagley, Clarion, left, and companion. Trapper Fagley says he caught 41 gray and 18 red foxes last winter.

"THE PEN IS MIGHTIER..."

An Outstanding Example of What Can Be Done by School Children to Encourage Safe Hunting

The week of October 23 last was set aside as "Hunt Safely" Week by Governor Edward Martin. At that time sportsmen's associations and other conservation-minded groups were urged to sponsor essays on the subject in local schools. Many of them did, and we take pleasure in publishing some of the prize-winning manuscripts.

The first organization to submit an account of its activities along this line was the up-and-going Crow Foot Rod and Gun Club of Wilkinsburg, and we are including the contributions of the first three winners. Before we do, however, we want to extend our heartiest congratulations to E. T. Kennedy, Publicity Chairman of the Club, for the splendid interest he took in the program, to Mr. R. A. Getter, Superintendent of the Wilkinsburg Schools, and Game Protector Ralph A. Liphart for their fine cooperation, and to all the contestants for their interest and enthusiasm.

We understood over thirty essays were entered in the contest for which a $25.00 War Bond was awarded as first prize and $10.00 and $5.00 in War Saving Stamps as second and third prizes respectively.

The winners of the prizes are Miss Winifred Sample, age 15; Dick Precious, second; and Bob Peabody, third.

By Winifred Sample

AS the leaves begin to put on their colored coats and the tang of the first frost fills the air, the trigger fingers of all avid hunters begin twitching in anticipation. To avoid accidents, every hunter ought to take all precautions for his own safety and that of others. Here are a few hints that may prove helpful:

If you can avoid it, don't wear clothing that's too drab or dull. White garments are even more dangerous. A white handkerchief may look like the flash of a deer's tail to another hunter. The relatively brilliant colors common to most outdoor clothing serve for identification and for safety.

Slippery soled boots are treacherous in the woods. If the soles of your favorite hunting boots are wearing smooth, have them fixed, or drive hobnails into the soles yourself.

Loaded guns should never be carried in an automobile. A bump in the road or an excited dog might cause a loaded gun to be discharged, with results that are serious.

The guns should be loaded only after you have arrived at your destination; and then the guns should be put on "safety" before leaving for the woods, because in the first heavy underbrush a small twig may hook through the trigger and cause disaster. The man ahead should always hold back the branches for the one following. Many a hunter's eye has been seriously injured by a snapping branch.

In order to secure the widest shooting range and avoid much of the danger, it is better for two men hunting together to walk side by side. If it is necessary for them to proceed in single file, the leader should carry his gun in the hollow of his arm with the muzzle pointing forward and down, and the man behind should carry his gun over his shoulder pointing backward.

When an obstacle is reached, such as a fallen tree or fence, put your rifle on "safety" before climbing over it. A barbwire fence is very dangerous, and the best plan is for one man to go through or over it without his gun. Then the guns can be safely handed over by his companion.

A rifle is more dangerous in the woods than is a shotgun. A stray bird shot may cause a painful wound, and at close range a charge of buck shot may be deadly. A bullet from a rifle however, may pass through its target, or ricochet from a rock and continue its flight with sufficient momentum to kill or injure a person in its path a long distance beyond.

Hunting running game, such as rabbits, is more dangerous than shooting birds on the wing or climbing animals, because of the necessity of shooting low and the possibility that another person may be within range. For this reason, members of a party hunting ground game should either stay together, or separate beyond range of one another.

Marshy ground is dangerous because it is slippery and it is soft. If you slip and fall, the muzzle of your gun can easily become clogged with mud which may cause the barrel of the gun to burst the next time a shot is fired. When snow becomes frozen in the barrel, it is just as dangerous as mud. Remove the shells before cleaning any mud or snow from the tip of the barrel.

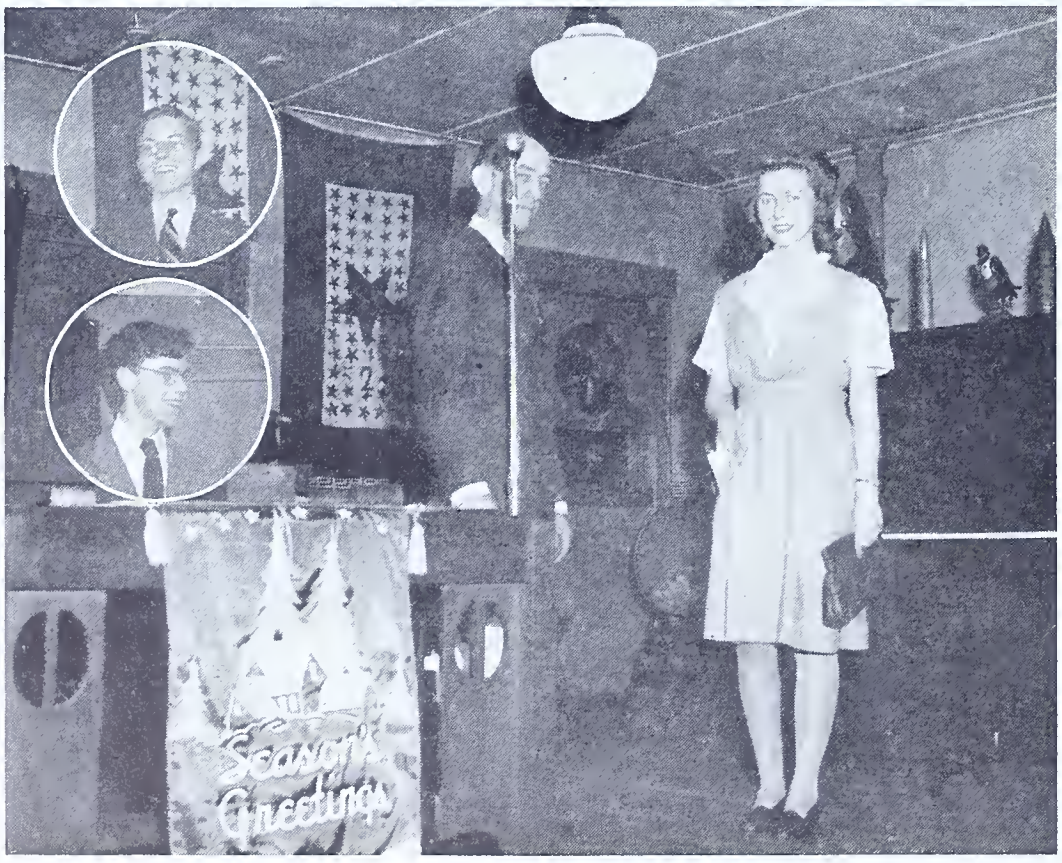
Watch your step on uneven and rocky ground, and the stubble in corn fields. Tripping and falling is always dangerous when you're carrying a gun.

Firing against rocks and over water should be avoided, because the course of a ricocheting bullet is uncertain, and some person may be within range.

Upon returning to the car to change location or return home, the guns should be carefully unloaded before being placed in the car.

Following are ten commandments of nimrodic law:

1. Handle every gun as it is were loaded.
2. Be sure of your target before you pull the trigger.
3. Never leave your gun unattended unless you first unload it.



Above is Miss Winifred Sample, winner of the first prize in a "Hunt Safely" contest sponsored in the Wilkinsburg High School by the Crow Foot Rod and Gun Club of that city, with E. T. Kennedy, Chairman of the Club's Publicity Committee.
In the insert at top is Dick Precious, second prize winner, and Bob Peabody, who took third honors.



4. Carry your gun so that you can control the direction of the muzzle even if you slip.
5. Always make certain that the barrel and action are clear of obstruction—but be sure to look into the breech of the gun, not the muzzle.
6. Never point your gun at anything you do not want to shoot.
7. Avoid horseplay while holding a gun.
8. Never shoot at a flat hard surface; such as rocks or the surface of water.
9. Instruct your children in the proper use of firearms and explain the dangers of the weapon.
10. Do not mix gunpowder and alcohol.

By following the safety hints for hunters, as expressed in this essay, you should have a safe, joyous, and enthusiastic time hunting in the frosty November woods.

By Dick Precious

The need for an increased number of hunters who are reliable and careful while hunting is very great at the present time and will become greater unless something is done quite soon. Many men are careless hunters because they have not been impressed with the actual seriousness of this ancient pastime. In truth, the amount of thought given to this factor of seriousness is proportional to the number of accidents in hunting every year. If more thinking about application of safety rules were done by more hunters, many fatalities and mishaps would be prevented.

The first thing that should be done to remedy this drastic situation is a compulsory test prior to issuing the license. This test should consist of mental alertness, physical condition and previous training questions. If this were enforced the number of tragic deaths would be considerably decreased.

Of course every gun must be handled extremely carefully when it is loaded since it is such a dangerous weapon. Many accidents are due to carelessness in handling as well as carelessness in shooting.

In the case of handling arms there are several ways that accidents frequently occur and should be guarded against. A hunter never should crawl or climb over or under a fence with a gun in his hand. A rifle is too easily discharged to permit any such thoughtless action. Furthermore if it ever becomes necessary to climb a tree, the gun should always be left on the ground in the care of another hunter unless it isn't loaded. In the case of climbing a fence the gun should be placed on the ground to be picked up after crossing the fence. Another rule for safe hunting is that a hunter should never shoot at a stone, steel or other hard flat surface such as water, because the bullet may glance off and prove to be a dangerous missile to the shooter or any innocent bystander. Another very important rule to be followed is that the hunter should always have complete control over his gun in the case of any mishap such as a slip or fall. Guns should always be in first class condition to prevent accidents which occur in their actual firing mechanism. Only arms in good condition and those that are reliable should be used since a great number of accidents are due to the use of old rifles and pistols that do not operate efficiently. Moreover bright red clothing should be worn at all times during hunting.

In addition to the above rules pertaining to the handling of a gun there are those in regard to firing a rifle in the right direction at the right time. Care must always be taken that the target is game and not another hunter.

In conclusion, I think that the very most important rule is to think and consider the seriousness of the whole matter of hunting.

By Bob Peabody

There are only two kinds of hunters—the dead and the alive. Last year 1,027 hunters shot their last shot, saw their last rabbit or deer and all because of carelessness on the part of themselves or on the part of others.

"Appalling" you say? Yes, it is, when one stops to think and you realize that not one of these should have died. When you consider that these hundreds of fine Americans were killed doing the thing they probably liked to do, most of all.

"What can be done about it" you say? The answer can be summed up in three words. "Use your head." If all hunters would follow this maximum no one would be hurt.

Two of the most popular ways of being killed are by looking down the barrel of a gun and having the gun go off in an automobile.

To rid ourselves of these evils every gun should be treated with respect. It should be assumed loaded until examined by yourself.

But these are only general safety rules that every one should know and follow. The only way this breath-taking amount of fatal accidents can be reduced is by preventive measures.

I would recommend that a medical examination, including a very strict eye test be given or made compulsory in order to get a hunting license. This would eliminate those that had illness and also those that had bad eye sight. In this way many accidents would be eliminated from the start.

In conclusion, I repeat, everyone of the hunting fatalities of past seasons could have been eliminated if people would not play with their guns, if they would use their common sense, and if an eye test and a physical checkup were made compulsory.

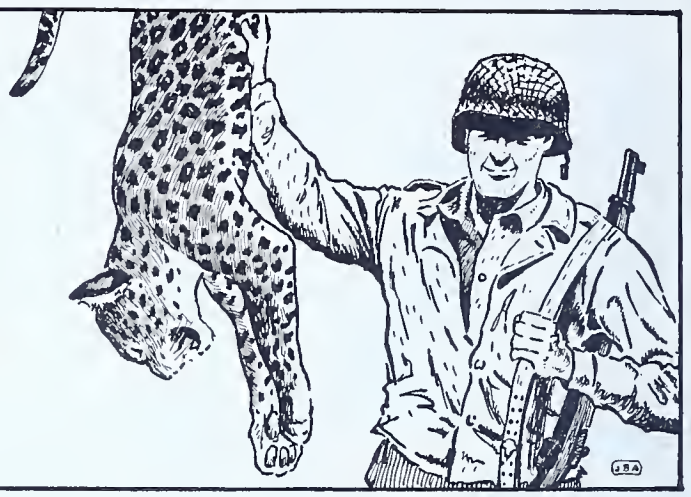
The next association we heard from in connection with the Safety Program was the Oakmont Rod and Gun Club. It, too, did a bang-up job under the leadership of its president, C. J. Hetrick and through the splendid cooperation of Dr. W. Lee Gillmore, Superintendent of Schools. The contest consisted of writing essays on safe hunting and the association offered $10.00 as an incentive bonus. We are not certain how many contributions were made but Mr. Hetrick advises there were seven winners. We do not have space to include all of their articles, but shall publish the first three.

First honor went to Gus Glinos; second Dorothy Luciani; third, David Eckhardt; fourth, John Pyron; fifth, Louise Loeffler; sixth, Clark Unger; and seventh, Sue King.

(Continued on page 30)



With Those in The Service



"The exploration of these far off islands (Philippines) are not replete by any means. I well remember my first view of a tropical island. Our boat was sailing through the China Straits early in the morning, its bow following a tortuous and sinuous channel. Many promontories jutted out from the shoreline and when submerged tapered into beautiful coral beds. Here the aborigines, in their scanty apparel, dive for the remains of countless weird and intriguing shell-like crustaceans. Beautiful blue starfish, and conchs clutter the sandy beaches that are washed ashore by the fall and rise of the tide.

"My first sample of this jungle peace fired me with terrific enthusiasm to explore many of the countless islands. Fortunately this opportunity presented itself and a friend and myself took quick and excited advantage of the invitation.

"Our conveyance was a round and small landing barge. We imagined ourselves as Robinson Crusoe. New Guinea is composed chiefly of a great chain of undulating mountains, many of which transpire into lofty heights. As our boat bobs through the straits these hills loom out in the far distance, not too far from the shoreline. Endless cascades can be dimly perceived on close observation with binoculars. These cascades fall through many glens continually bathing the lush plant growth.

"In these particular spots one can find seclusion and refreshment from the sun's stifling rays. Here, too, innumerable unknown creatures flourish. Vivid butterflies, wasps, ants, bees, flies, mosquitoes, leeches, spiders, beetles, crabs, katydids, snakes, lizards, bats (some commonly called flying foxes, or fruit bats), and a gorgeous array of varying colored birds. The latter are too numerous to describe at a fleet glimpse. Flycatchers, wren-like birds, without the bubbling song, hummingbirds galore, honey creepers, pigeons of all sizes and color patterns, parrots, herons, crows and ravens, also birds closely akin to the latter two which are quite talkative, dainty minute kingfishers along with their much larger prototypes, and different species of raucous jays. One particular jay is most elusive. He approximates the size of our crow, but his color pattern is of a brilliant black and pure white. This fellow led me a merry chase before I trailed down his derisive jibings and affirmed the owner.

"The birds just mentioned are of a different sort when compared to those of the new world, for their abode is of deep solitude and overwhelming jungle, massive, gloomy, incredibly far and paradoxically near. Nature has been lavish in her law of natural selection over here, but slighted these feathered friends when it came to handing out songsters. I miss the soft, plaintive voice of the field sparrow, and prairie warbler, so common at Pine Grove Furnace amongst the second-growth oaks and open glades, the power and melody of catbird and brown-thrasher, the rounded notes of the robin, and woodsy flute of the thrush. Surprisingly I have yet to witness a tropical bird singing.

"A description of these inhabitants including their philosophy and way of life would entail another epistle. Their seclusion, and how it affects all other tribes of different islands, their previous history delving into evolution of religion and their own physical make-up in regards to ecology, the marriage rituals, the weird and fiendish dances, the essence and supreme esteem placed upon the pig, the chief and his harem, and many other phenomena are most interesting to study and behold.

"After an hour or so of exploring we finally found a native village. With much effort we attempted conversation with little results. Surprisingly the natives first are reluctant in associating, but after one shows them no harm are quite amiable and possessed of the same inquisitiveness as we are.

"My friend did some bartering for green cat eyes, while I frantically and excitedly snapped the shutter of my camera.

"Our day progressed too rapidly and finally friend Wark and I realized our time had practically vanished. With much haste we scurried and retracted our trail to the landing barge. Several natives had congregated to bid us farewell. Our boat vehemently pulled away from the reef, the skipper pointed her bow homeward. We gazed wistfully at the fast disappearing island." —Lt. Wm. L. Rhein, D. C., O-316359, 21st Inf. Reg., APO 24, c/o Postmaster, San Francisco, California.

"Had a short furlough the first of December—just about enough to get home, squeeze in two days of deer hunting and get back. Had a wonderful time but failed to see a buck. Hunted between Dents Run and Hicks Run with an uncle of mine from Benezette.

"The deer population in that section seems to be very plentiful. In two days I saw over 100 deer, looked them all over very carefully, but did not see a sign of a horn. That is too many deer to see and no bucks. A doe season next year would be a good thing from what I observed. All the animals seemed to be in good condition but the severe winter they are having will determine that better than any observations.

"The big thrill of the trip was seeing a big 10-point bull elk. I first noticed it some distance from me. Just saw something disappear into the brush. At first all I could see was its legs which looked like two hunters walking, one behind the other. Got to thinking about it and decided it couldn't have been hunters. Kept watching the place and soon this big elk stepped out. It kept feeding around and coming closer to me all the time. At one time three deer passed not over five feet from the elk. They paid absolutely no attention to one another.

"This is the first time I have ever observed them that close to each other. The big fellow finally came over and laid down within 50 yards of me. I would whistle at him and he would roll that big head and horns around looking for the noise that was disturbing him. After teasing him for about 15 minutes I started to walk over to him. He jumped up and threw those big horns back and his shoulders and tore down through the woods. You could hear him crashing through the brush for some time. He sure was a dandy and he looked in perfect condition. Would say that he weighed around 800 to 1,000 lbs. Believe me, with steaks being impossible to get up home, my mouth sure did water for awhile. Have eaten elk steak and know what I was missing, but got just as much of a thrill seeing him as I would have killing him.

"Was informed by a friend of mine from Benezette, Deputy George Berry, that there is getting to be a large herd of them in the vicinity now."—S/Sgt. William R. Overturf, Company "D," Academic Regiment, Ft. Benning, Ga.

"Tell Leo that other than processing about 3,000 feet of film a day on the K-I-A machine, I run a photostat machine, load 16 mm. movie magazine's, shoot movies and stills develop, print and enlarge, make portraits, mix chemicals by the gallons, take care of the supply room and sweep, mop and fire a boiler. When time permits I sleep and eat if I'm not checking in or out a vehicle or shoveling snow. Brother talk about variety I've got it but all in all it still is interesting. I learn more every day."—D. L. Batchelor, Ephrata, Washington.

In Memorium

PENNSYLVANIA conservationists lost a good friend when Dr. Frederick A. Godcharles, of Milton, passed away on December 29, 1944 in Maryland. While a member of the Pennsylvania State House of Representatives (1901) and the Pennsylvania State Senate (1904) he was instrumental in introducing and passing several very important bills promoting the conservation of wildlife.

Dr. Godcharles was educated in the public schools of Milton and was graduated from Lafayette College in 1893 with the Degree of Electrical Engineer. For two years thereafter he served as Assistant Superintendent of Electrical Construction at City Hall, Philadelphia, but resigned in 1895 to become President of the F. A. Godcharles Company, owners of the Milton Nail Works and manufacturers of cut nails and spikes, hinges, washers and puddle bars. He filled this office until 1914. Meanwhile in 1910 he purchased the *Miltonian* and later established the *Milton Morning Bulletin*, of which he was editor and publisher until 1926. For many years he was also a Director of the Milton Trust and Safe Deposit Company. He began his career in public life in 1900 when, as a Republican he represented his district in the General Assembly. In 1904 he was elected to the State Senate and from 1915 to 1923 served as Deputy Secretary of the Commonwealth. From 1927 to 1931 he was Director of the Pennsylvania State Library and Museum.

Dr. Godcharles was an active member of the National Geographic Society, the Izaac Walton League, and the Pennsylvania State Sportsmen's Association of which he was an officer for a period of years. He was the organizer and for twenty-six years secretary of the Susquehanna Trap Shooters' League. He was also active in many historical, civic, patriotic and fraternal organizations.

In 1928 Susquehanna University conferred upon him the Honorary degree of Doctor of Letters.

Among his many other activities, Dr. Godcharles was the able author of much literature on Pennsylvania history, and was well-known as a public speaker throughout the State.

No finer tribute could be made to Dr. Godcharles than the following letter, dated January 11, 1945, from Hon. John M. Phillips of Pittsburgh, that grand old man of conservation who fought so hard to establish a Game Commission and for the basic laws upon which its foundation was laid. It was to him we turned for a record of Dr. Godcharles contribution to the sportsman's cause and in Mr. Phillips' letter that record speaks for itself.



Photo courtesy The Milton Standard.

DR. FREDERIC A. GODCHARLES

"I have been out of my office for some time which accounts for my not having answered your letter of the 8th sooner. I was terribly shocked and grieved to hear of the death of my good friend and companion-in-arms, Dr. Frederic A. Godcharles. His death was a great loss, not only to his intimate friends but to conservationists and sportsmen throughout the country.

"I had known him so long that I cannot give you the exact date when I first met him but I think it was in 1890 when we organized the Pennsylvania State Sportsmen's Association at Corry, Pa. He was one of the first corresponding secretaries of the Association. He was one of us who was influential in the formation of our Game Commission in 1895 and fought vigorously for years to secure the resident hunter's license law.

"In 1905, when the Commission was receiving only $10,000 a year for its conservation work and our two western Pennsylvania commissioners had resigned in disgust, I was forced onto the Commission by the Sportsmens' Association to fight for the license law they wanted. The first man I contacted in Harrisburg for help was the Doctor, then a state senator, and I spent much of my time with him.

"He was one of the finest men I ever met —an historian, a law-maker, a hunter-naturalist, one of the best shots in the state and his work along conservation lines was far-sighted and selfless. He was one of the few people who consistently and whole heartedly supported me in my fight for our fundamental conservation laws, even when we were opposed by the Hunters and Anglers Protective Association, claiming 75,000 members and supported for this reason by the politicians, and even when the president and secretary of the Game Commission opposed us. In fact, I can remember the time when I was the worst hated man in the state. About the only friend I had in Harrisburg was the doctor, who never seemed to be discouraged when we suffered a legislative defeat. His chuckles at my rage many times kept me fighting on.

"You ask about the Refuge Law of 1905 and the Buck Law of 1907. Yes, Dr. Godcharles backed both these proposals of mine as he did every worthwhile idea I ever had, including the Alien Gun Law. In 1900, I hunted in Jackson Hole, near Yellowstone Park and found that when game was disturbed, it took refuge in the park and I realized that if it were not for the park there would be no bear, elk, moose or other big game in Wyoming. So on my return I took the matter up with my late friend, William M. Kennedy, then president of the Commission, and advocated small Yellowstone Parks for Pennsylvania. In 1901 I hunted in British Columbia where mountain sheep ewes, lambs and two year old rams were protected and sheep, especially large rams, were plentiful, whereas in the United States, through the promiscuous killing of sheep, they were almost exterminated. So I advocated the buck law to bring our deer back to Pennsylvania.

"After thirty-four states were operating under a resident hunters law, we secured ours in 1913 through the good offices of Governor John K. Tener after an 18 year fight.

"The Doctor was very active in the passage of our fundamental game laws and although we circulated petitions throughout the state I can't remember his unrolling a petition in the senate chamber. However, in his enthusiasm, he probably did so.

"As a matter of fact, you can't give this great man too much praise or credit for the conservation work he did."—signed Jno. M. Phillips.

With the above, Mr. Phillips enclosed the last letters he received from Dr. Godcharles. One concerned the early history of the Pennsylvania Sportsmen's Association which is added proof of the interest of both men. Both letters were written in October 1944, one on the 8th, the other on the 25th.



Photo by Leo A. Luttringer, Jr.

Harold Plasterer, Supervising Bounty Clerk, holding one of a number of Great Horned Owls on which the Game Commission pays a bounty.

HOW SHOTGUN GAUGES ARE DESIGNATED

Comparatively few sportsmen, many of whom have been using shotguns for years, know how the system of naming shotgun gauges came into existence. Here is the story, says a Remington Arms Company authority.

"Back in the muzzle-loading days round balls of lead were used in the guns of that day. One sportsman would like a gun of a certain type—another of another type. After a number of years standard gauges were adopted by gun manufacturers.

"Those gauges were based on the number of spherical lead balls which would fit into the muzzle of a gun—and weigh one pound. For instance, the 12 gauge shotgun got its designation because 12 round pellets of lead which would fit in its bore, would, grouped together, weigh a pound.

"The same applies," he said, "to the way in which other gauges, such as the 16, the 20, the 28 and others, got their names.

"No matter how old the system is," he continued, "it will most likely continue in shotgun gauge designations. The diameter of the bore of the various 'cylinder-bored' shotguns are listed below:

10 gauge	.775 inch
12 gauge	.729 inch
16 gauge	.662 inch
20 gauge	.615 inch
28 gauge	.550 inch
.410 bore (approx. 67½ gauge)	.410 inch

A century ago millions of American wild buffalo ranged the west; the great slaughter beginning about 1860 dwindled the number to nearly 500 but through protection in national and other parks there are now over 5,000.

Lead Them and You Will Get Them

"In any form of shooting at moving targets," says a Remington Arms Company authority, "'lead' is all-important. *Lead them and you will get them.*

"No man can figure out," he said, "by mathematical calculation, just how far to lead a flying target, whether it be game birds or thrown targets. Each presents an individual problem.

"Each target in Skeet presents a problem in leading. Each target at the traps presents another problem, both dependent upon the wind and the weather.

"In game bird shooting, the picture is still the same—in relation to lead. A high-flying duck, a zooming grouse, an erratic timberdoodle, a cackling pheasant, the booming burst of Mr. Bobwhite Quail, and all the rest of them, present each individual with the problem of leading.

"Though articles long enough to fill many books have been written on the subject, no one YET has ever given or will ever give the proper prescription for SURE-FIRE effective leading.

"The art of leading comes only through experience in shooting. No 'shot' is ever the same, whether it be in the field, at the traps or at Skeet. A puff of wind, a twig in the way, a slip of the foot, a faulty swing, and many other factors play important parts in shooting that brings 'home the bacon'—or the trophy.

"No sportsman can tell any novice just exactly how far to lead any certain target. Yet he instinctively knows, through experience just when to touch the trigger. That knowledge comes only through experience.

"But *lead them and you will get them,*" he said. "Use your own judgment as to how *far* to lead—but *LEAD THEM,*" he added. "No one can ever hit anything by shooting behind it."—*Remington News Letter.*

CLUB TO PAY BOUNTIES

The Lancaster County Sportsmen's Association recently adopted a plan to control predators in that county. J. Arthur Norris, Chairman of the movement, announced that $300 is being offered for red and gray foxes, great horned owls, goshawks and weasels from January 1 to March 31.

Each predator will have the following points, worth 25c each:

Red fox—10 points	$2.50
Gray fox—10 points	2.50
Great Horned Owl—8 points	2.00
Goshawks—8 points	2.00
Weasels—2 points	.50

Two $25 War Bonds will be included in the prize money to be awarded to the individuals scoring the highest number of points, and additional Bonds will be given in the event of ties.

Persons receiving State bounty on gray foxes, great horned owls, goshawks and weasels will be furnished a receipt which they in turn must file with the secretary of the association so that the proper points can be credited to them. Since the State does not pay a bounty on red foxes it will be necessary for claimants to submit the carcasses of these animals to the local Game Protector or one of his deputies who will issue a similar voucher for credit.

Chairman Norris said he hoped farmers who have experienced poultry losses and hunters who have found small game scarce this past season will throw their support behind the program. [In speaking of the extent of poultry losses especially he cited the case of Missouri based on a report by the U. S. Department of Agriculture for the year 1943 which lists the losses by foxes as follows: 2,824,629 chickens value at $2,319,215; 103,170 turkeys valued at $286,875; 14,520 lambs valued at $145,200; and 52,480 pigs valued at $1,086,336 or a total of $3,837,625—more for loss from foxes than our bounty system complete, cost Pennsylvania for 30 years.]



Fine 170 lb. 10-pointer killed in Jefferson County by Loren E. Stewart, R. D. No. 1, Brookville, on December 8, 1942. Spread, 21¾ in.; length of both beams, 24 in.; circumference of beam near head 4⅛ in. Let's hear about some more big ones.

NATIONAL WILDLIFE WEEK SET FOR MARCH 18 TO 24

National Wildlife Week this year has been set for the week beginning March 18. Proclaimed by President Roosevelt in 1938, it has been sponsored annually by the National Wildlife Federation.

How the conservation of wildlife is related to soil, water and plant control will be the underlying theme of those conservationists who, through the press, over the radio and from the public platform, will tell this dramatic story to the nearly 20,000,000 Americans interested in the out-of-doors and the creatures that inhabit it.

Special emphasis this year will be given to postwar wildlife projects to insure adequate supplies of fish and game to meet the increased hunting and fishing pressure that is certain to follow the return of millions of service men and women to civilian life.

Each year the National Wildlife Federation issues a sheet of wildlife poster stamps reproduced from paintings by famous American nature artists. The current issue has 40 studies of birds, mammals, fish, flowers and trees in the 56 stamps on the sheet. One features a faithful reproduction of a Springer Spaniel.

Clubs, societies and individuals interested in securing further information about wildlife week activities should write the Federation at 1212 Sixteenth Street, N. W., Washington, D. C.

The Federation is a non-profit organization whose objectives are concerned with the preservation of wildlife.—See page 32 for sample of stamps.

The smallest owls in the world are the so-called elf owls of the American southwest desert areas; although only approximately five inches in length they are perfect little owls in appearance.

Summary of Fixed Charges Paid Since the Year 1921 on State Game Lands and Game Farms

Year	Road	School	County
1921	$ 765.66	$ 765.66	$ 382.83
1922	765.66	765.66	382.83
1923	895.60	895.60	447.79
1924	1,103.84	1,103.84	551.91
1925	1,719.59	1,719.59	859.79
1926	1,721.99	1,721.99	860.99
1927	1,850.98	1,850.98	926.68
1928	2,050.03	2,050.03	1,024.99
1929	2,769.59	2,769.59	1,384.74
1930	3,505.38	3,367.71	1,752.68
1930	63.24	63.24	53.64
1930	44.04	44.04	22.27
1930	44.54	44.04	.....
1931	5,196.98	5,245.97	2,598.52
1931	1.93	1.93	7.82
1931	13.70	13.70	.....
1932	6,433.18	6,434.83	3,216.61
1933	7,455.37	7,490.17	3,716.47
1934	8,600.35	8,615.72	4,307.17
1934	.....	.....	205.76
1935	9,172.62	9,359.15	4,679.58
1936	9,886.44	10,080.48	4,993.90
1936	130.13	721.44	327.42
1936	27.36	27.36	13.68
1937	10,914.64	11,036.72	5,419.11
1938	11,694.97	11,699.06	5,826.23
1939	11,966.09	11,971.72	5,983.68
1940	12,736.19	12,722.34	6,343.71
1941	13,154.17	13,168.48	6,559.28
1942	13,955.71	14,063.66	7,022.62
1943	14,637.04	14,655.62	7,318.68
1944	15,032.71	15,032.71	7,507.60
	$168,309.72	$169,503.53	$84,698.98

GRAND TOTAL—$422,512.23



Left to right: Wm. J. Davis, Field Division Supervisor, Div. "D," Huntingdon; Hon. John A. White, Conservation Commission, New York, and Game Protector Elmer Alexander, looking over a wild turkey propagating area.

OBITUARY

It is with deepest regret that we announce the death of John A. White, appointed New York Conservation Commissioner on September 2, 1943 by Governor Thomas E. Dewey. He was previously the president of the New York Conservation Council, an organization similar to our State Federation of Sportsmen's Clubs.

Commissioner White, who succeeded Lithgow Osborne, now Ambassador to the Norwegian government-in-exile in London, as head of the Conservation Department, established two new departmental bureaus on soil conservation and conservation education. An ardent sportsman, he was chiefly concerned with stream pollution and reforestation.

To us in Pennsylvania his passing means more than just the loss of a fellow conservationist. Only last summer he attended a joint conference of other state and federal conservation officials at the summer home of our Commission's President, Ross L. Leffler, and he spent several days with us this past Fall looking over hunting conditions in Pennsylvania.

A PRIZE WINNER

To Billy Musgrave, 16-year-old nimrod from Sterling, Wayne County, should go the credit for being the best all round big game hunter for the season. He and three companions came upon a large bear the first day of the season. Bruin was feeding on a 10-point buck he had dragged up a hillside about 500 feet. Billy dropped him with a slug from his single barrel shotgun, hitting him back of the front shoulder. They had to hire a team of horses to drag him out of the woods. The animal weighed 500 lbs. hog dressed. The best part of the story is that Billy couldn't buy any slugs last season so he and a buddy, Micke Stevens, melted some scatter shot into the ball that spelled curtains for his bearship. Later the young nimrod went to Pike County the first day of deer season and killed a 4-point buck with a well placed shot through the shoulder. He modestly claims it was all beginner's luck.

The American cultivated blueberry, now an important commercial crop, is a result of developments of the past 35 years in the selective breeding of this native fruit.

MOST VALUABLE FUR

The often-asked question as to which of all precious furs is the most highly-prized for women's coats is answered in favor of the chinchilla by a writer in the February number of *Frontiers*, the magazine of the Academy of Natural Sciences of Philadelphia.

Ermine, the fur of royalty, the sable, sea-otter, mink, all give way to chinchilla, fur so rare and so delicate that there are said to be less than fifty coats of wild chinchilla in the country.

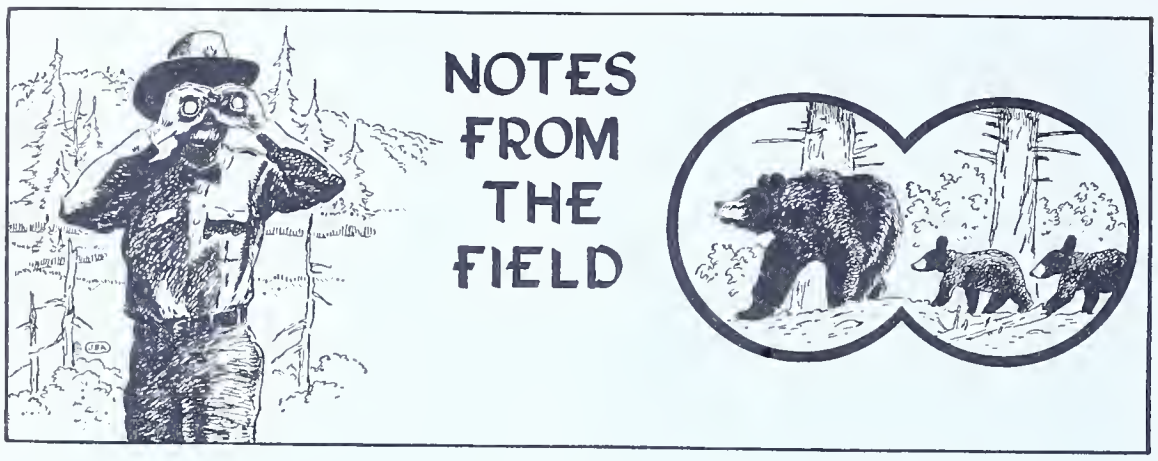
The chinchilla, a little fur-bearer of the Andes peaks, is practically extinct as a wild mammal, owing to its fur value. But chinchilla ranchers in the United States are having fair success in raising it in captivity. One of these chinchilla ranches is in Washington, D. C., and another at Hatboro, a suburb of Philadelphia.

In addition to "Little Fur King," the chinchilla story by Hebe Bulley, a Chestnut Hill writer, *Frontiers* offers an article on the Latin, Greek and Anglo-Saxon origin of common bird words of today by Ernest A. Choate, Elkins Park, Pa., a school principal; a picture story on the Mule Deer by Josef and Joyce Muench of Santa Barbara, Calif.; one on the Diamondback terrapin, and a half dozen others in the range of natural history.

While *Frontiers* is the membership magazine of the Academy, it has a national circulation among naturalists, schools, and libraries.

1943-44 DUCK STAMP SALES

State	*Total*
Alabama	5,841.
Alaska	4,143.
Arizona	4,145.
Arkansas	19,725.
California	92,725.
Colorado	19,969.
Connecticut	6,172.
Delaware	2,906.
District of Columbia	1,349.
Florida	11,675.
Georgia	2,511.
Hawaii	103.
Idaho	19,921.
Illinois	66,587.
Indiana	22,740.
Iowa	36,749.
Kansas	25,278.
Kentucky	4,227.
Louisiana	35,199.
Maine	9,162.
Maryland	10,182.
Massachusetts	18,677.
Michigan	83,554.
Minnesota	95,446.
Mississippi	7,487.
Missouri	34,193.
Montana	22,147.
Nebraska	21,181.
Nevada	5,288.
New Hampshire	3,432.
New Jersey	19,519.
New Mexico	4,614.
New York	38,730.
North Carolina	8,291.
North Dakota	20,713.
Ohio	21,334.
Oklahoma	19,974.
Oregon	32,750.
Pennsylvania	25,027.
Rhode Island	2,764.
South Carolina	4,893.
South Dakota	25,483.
Tennessee	10,929.
Texas	70,441.
Utah	15,679.
Vermont	2,836.
Virginia	10,713.
Washington	63,050.
West Virginia	1,481.
Wisconsin	66,328.
Wyoming	6,447.
Puerto Rico	150.
Philatelic Agency	5,161.
	1,169,352.



"The deer season was a howling success in Butler County but old man winter interfered with lots of snow and left the roads in such shape that the big crowd of hunters did not get out much.

"We have lots of deer left even though the kill was heavier than in previous years."—Game Protector R. P. Schmid, Slippery Rock.

"The deer kill in this section seemed to be small this season. Most of the racks were from 3 to 6 points. One killed near Tidioute had 13 points. There were fewer hunters this year and the bad weather and deep snow probably accounted for the small kill.

"The members of the Corry Rod and Gun Club are feeding a large number of quail on one of their special wildlife refuges near Corry.

"Last week I shot a Cooper's hawk after it had killed a grouse. The grouse was budding in an apple tree when the hawk hit it, knocking it to the ground. Then the hawk returned to finish the kill giving me a good chance to shoot."—Game Protector George H. Burdick, Tidioute.

"The snowfall this month has been the heaviest in many years making most secondary roads impassable and even blocking main highways for several days at a time. The going was so difficult for deer hunters that few of them hunted the last week of the season.

"A local young lady commented to a friend that she had seen a whole truckload of *illegitimate* deer going through town.

"Two farm boys, near North East, while working in a grape vineyard, observed a red fox running towards them. They ran it down and killed it after a slight struggle. When they told a neighbor of their experience he said the fox was ailing or they never would have caught it and advised them to find out if it had rabies. This proved to be the case and both boys took Pasteur treatments."—Game Protector Elmer D. Simpson, Cambridge Springs.

"No meetings attended this month but I did go to Wesley to attend their meeting and date was changed on account of opening of deer season.

"The first week of the deer season was almost as successful as usual but the snow almost stopped things for the second week. I finally found about five that were taken around the edges of the last day. All roads were blocked and there were no parking places."—Game Protector Ralph H. Ewing, Polk.

"The deer season opened with a nice lot of hunters but they soon quit and the remainder of the season showed the smallest number I have seen for a long time. The kill was very light. A big snow storm occurred the last week and no hunters were out until the last day when I observed eight.

"One fellow got lost on a Monday but found his car Tuesday. However, the snow was 28 inches deep so he stayed in his car until Friday then walked down Lynn Run road to Blue Rock Quarry where he broke into a cabin, built a fire and found something to eat. We found him there on Saturday, and subsequently hauled his car out with a tractor from a saw mill. He had used up all his gas and was in bad shape from cold and hunger.

"The deer are coming down to the lowlands to feed. We can see them every night."—Game Protector William G. Matthews, Rector.

"We are beginning to reap the benefits of last summer's windstorm as the deer are using the browse provided by it."—Game Protector Jack L. DeLong, Portage.

"Out of 11 red and 5 gray foxes trapped between October 1 and November 30, 8 reds and 3 grays were females. I am wondering if this sex ratio is an indication that reproduction has reached the peak and from now on we will witness a steady decline in the number of foxes.

"From personal observations and from talking with a number of sportsmen I find there is a noticeable scarcity of woods mice and chipmunks. Such being the case the diet of foxes in this locality would necessarily be game birds and animals as well as other species."—Game Protector William Lane, Hustontown.

"The kill of deer in this section was about the same as last year although there were about twice as many hunters afield. The largest buck I recorded weighed about 200 lbs., had 10 points, and a 26-inch spread."—Game Protector Paul L. Failor, Mt. Pocono.

"A little item I wish to pass on to those interested—when planting corn put a small amount of turpentine over it and crow damage will be kept to a minimum. I tried this and the results were excellent. Be sure each grain is covered. About a half pint to the hopper-full is sufficient."—Game Protector Edward R. Richards, Portland Mills.

PLANS JUNIOR CLUB

The Matamoras Rod and Gun Club, which owns a very beautiful log cabin and several hundred acres of fine woodland in Westfall Township, Pike County, intends to utilize the Junior members, under adult supervisor, to improve hunting conditions while the majority of the members are serving their Country. The general idea is to take the Juniors in hand and teach them how to plant trees, food (the club has six acres cleared), use good judgment in cutting timber for browse, the use of timber, rustic construction, how to build bird houses, feeders, shelters, how to trap predators, etc. They will also receive instruction in masonry, carpentry, electricity, and other trades as the club is fortunate in having members from practically all walks of life.

"I believe that the Commission would be interested to know that the Union County Sportsmen grew approximately 450 bushels of corn and seven acres of buckwheat on their farm near Weikert, all of which has been left standing for game food. Another sportsman, Olan Boop, of Harleton, has contributed 150 bushels of soy bean screenings, which makes a very good turkey and ringneck food."—Game Protector M. B. Wells, Lewisburg.

"During my fox trapping operations in October and November, I examined the stomach contents of a number of gray foxes. Some of them were empty, but others contained a large amount of corn, also some rabbit fur and flesh. The last fox I caught was a red one, and upon examining the stomach contents, I was surprised to recover one Pennsylvania Game Commission fiber trap tag in good condition.

"Some deer had lost their antlers before the season was finished."—Game Protector Theodore T. Schafer, Conyngham.

"The extreme bad weather beginning December 11 practically stopped all deer hunting for the remainder of the season and undoubtedly had a material effect on the kill of deer in Division G.

"One pure albino, 8 points, 150 pound buck was killed in Jenner Township, Somerset County, by Roy Robertson, R. D. No. 3, Johnstown."—Field Division Supervisor Rollin Heffelfinger, Irwin.



Lost or stolen. If found notify George Filchock, Grindstone, Pa.

"A great many of the buck deer in this section had lost their antlers either before or during the season this year. I had reports of a great many antlers falling off, either when the deer was shot or when the hunter tried to drag the animal by them. I personally saw several very nice bucks that had dropped their antlers. There were also quite a number of bucks killed with only one antler. There were many bucks in the woods this year and nearly all the hunters I interviewed during the season had either killed a deer or had had chances and missed. The deer were in fine condition with plenty of fat on them. I personally saw and had the chance to look over thirteen nice bucks during the season."—Game Protector Maynard R. Miller, Honesdale.

"Chief Sheffer and another deer hunter were discussing their luck for the day when Chief asked the other nimrod how many deer he had seen. He replied, "One doe at 10 o'clock this morning, and she wasn't out of bed yet."—Game Protector W. T. Campbell, Franklin.

"Many bears were seen during deer season. It seems that most bears that were kicked out by the hunters on their drives just lay down under a large clump of laurel or huckleberry brush and were willing to call it their winter quarters.

"One resident hunter from down around Bethlehem came out of the woods, wild-eyed, and inquired the way to Shepherds Corners.

" 'What's the matter?' I asked him.

" 'I heard a noise,' he explained, 'and thought it was a buck. I stepped carefully around a clump of laurel and came face to face with a bear that must have weighed 500 pounds. I'm going home. I'll stick to rabbit hunting!' "—Game Protector John H. Lohmann, Milford.

"Deer season started with a good kill the first week, but heavy snow fell on the 11th and 12th to a depth of eighteen inches and closed all rural roads to hunting territory.



Loren Stewart, R. D. 1, Brookville, and a semi-albino antlerless deer killed in Jefferson County in 1939. Approximate weight, 105 lbs.

The last week no hunters ventured out far in the woods. One exceptionally fine buck, a 12 point weighing 210 pounds, was killed in the district by James Quigley of Shippenville. Quite a number of large deer were killed but none as large as this were reported.

"On Monday, December 18, late in the afternoon a 12-point buck came into the orchard at my home and fed under the apple trees until dark. He was quite tame. This fine deer was in the vicinity all season and visited the orchard regularly before season. During the season he came to feed only during the night."—Game Protector Floyd A. Beck, Venus.

"On Christmas Day a number of children were sled-riding in the vicinity of Six Mile Run, Bedford County when they noticed a doe deer and a very small fawn feeding from its mother. The kiddies called their parents out to see this very unusual sight."—Game Protector Robert H. Port, Sarton.

"The severe snow and ice storms during December provided much needed browse for deer in the way of broken limbs. In fields where farmers were having damage all fall the animals came to the cornfields in numbers about twice as large as soon as cold weather arrived, indicating that natural food in the woods is very scarce.

"Four legal bucks fed on corn in one field every night during the open season. They could be observed with a spotlight only a few yards from the farmer's kitchen door, but in the daytime they would retreat to cover on the mountainside and all but one escaped being killed. The small size of the antlers on almost all of the animals killed indicates there are too many deer for the amount of food in this section of the state."—Game Protector Earl E. Smith, R. F. D., Williamsport.

"Quite a lot of deer hunters were in the woods the first three or for days of the season and a fair kill of legal bucks was made the first two days. The last week of the season was unfavorable, however, due to a sleet and snow storm which occurred Monday evening, December 11."—Game Protector H. D. Carroll, Thornhurst.

"The deer season is believed to have been one of the best we have had in this section for a number of years. More kills were reported than usual and the bucks ran quite large in size and were in good condition. The absence of the usual number of hunters was noticeable during the beginning and middle of the weeks."—Game Protector Howard F. Hoffman, Susquehanna.

"Most of the deer I checked this season had small antlers. However I think the kill was fair considering that deep snow cut the hunting short about a week. The number of hunters was very much less than last year.

"I no sooner get the roads opened up when along comes a hard wind or another snow and closes them up again."—Game Protector George E. Sprankle, Emporium.



Andy Ewart of Carmichaels with some of the foxes he trapped during the winter of 1943 in Greene County.

"While checking deer killed this season I could not help notice that about 90% of them had very small racks with very little spread to them. However this did not coincide with the findings of other officers I talked with."—Game Protector Peter A. Zikosky, Minooka.

"We had about as many hunters this year as last but there were not many in any one place at any one time, thus making them hard to contact because they did very little driving. More legal bucks were killed this year than last, however."—Game Protector R. F. Turley, Martinsburg.

Twin kangaroos, the first of which any record is available, were born recently at the Philadelphia Zoo; the mother is caring for one in her pouch, the other is being bottle-fed with cow's milk.

"Food conditions for small game are the best I have seen in the past three seasons. Grapes, dogwood and other shrubs have a good supply of fruit. Nuts are plentiful with the exception of the hickory. Beech crop is spotty with many of the nuts "deaf." Apples are very plentiful.

"We have been having trouble in Refuge 26A with dogs running deer. We're also receiving damage complaints from farmers in the vicinity of Refuge Headquarters. Most of the damage has been to buckwheat, and I have seen some fields pretty hard hit."—Game Protector Jack L. DeLong, Portage.

"We have an exceptionally large crop of acorns this year throughout Land Group E-1, also a good crop of hickory nuts. Beechnuts are plentiful in certain areas for the first time since 1935."—Game Protector Cecil D. Hancock, Port Allegany.

How Does the Game Commission Function

(Continued from page 3)

improvement. If a question of policy revision is involved, it is placed before the entire Commission for consideration and action at the earliest opportunity. If, on the other hand, it is of an administrative nature, the matter is placed in the proper channels for the attention of some staff employee.

While it may be possible for each member to keep informed with the various projects conducted in his respective district and to maintain a general knowledge of the progress of the various general activities from reports submitted to him, it is only when assembled at a regular business meeting of the Commission that full consideration can be given to all the statewide activities. It is at these meetings that full discussion is heard and formal action taken.

Previous to every Commission meeting, a schedule containing the numerous items of business to be brought up for discussion is prepared. The agenda is sent to the members sufficiently in advance of the meeting so that they can give the various problems careful study, thus enabling them to become fully conversant with each subject before it comes up for discussion.

All phases of the Commission's activities, both in the field and office, appear on the schedule. This comprises matters of importance pertaining to the State as a whole, as well as to the several regions. Reports are given by standing committees of the Commission, appointed to make a special study of various activities for the betterment of wildlife and its environment. Occasionally a committee is supplemented by men who are experts in the particular problem being investigated, and the results from their studies are included with the reports. Any item of business which may have been presented to individual members by the constituents from their respective districts are also received and given full consideration.



J. P. Mickley, Lewistown, with trophy bagged in Lycoming County last season.

It thus can be readily seen that the Commissioner's job is no sinecure, but one of many problems requiring much forebearance. In the solution of these issues, each member willingly makes many personal sacrifices in time, money and effort. It is true that they are reimbursed for expenses incidental to their various meetings—if they don't forget to bill them. But the biggest benefits the Commissioners derive from these duties are the pleasure and satisfaction of their contribution to the state and nation through the conservation of essential natural resources.

What's Happening to the Grouse

(Continued from page 13)

dition has been going on since the beginning of time, for I read recently in a newspaper of large circulation under the topic, "40 Years Ago Today", of the sportsmen complaining bitterly about the scarcity of grouse. I can remember quite a few of our peaks and low periods, and in each instance when the birds come back they appear to me to be in less numbers than the previous abundant years. For this reason I think it is high time that the best minds on conservation lend some of their time, official or otherwise, to solve this problem once and for all. It can be done, but not through the medium of wishful thinking.

I have my first time yet to hear any qualified grouse hunter blame the scarcity of food for the scarcity of grouse, except perhaps in the case of an over abundant deer herd which has in the past practically depleted the ground food in the forest. Much of the ground food consumed by the deer are essential grouse foods. Certainly under such conditions food scarcity may be responsible to a marked degree in the grouse population. Even at a time when and where the deer herd has not depleted the forests of the grouse food, the population would be on the up trend or peak of a cycle, thereby possibly creating the condition termed "spotty".

It is most difficult for me to understand why so much emphasis has been placed on large game hunting at the expense of small game. It would appear to be sound conservation to manage or control the deer herd consistent with the available natural food, for it has been proven that when attempts have been made to reduce the deer herd (doe deer) many have fought the action admitting that in some particular areas doe seasons have been indirectly responsible for over-shooting, thereby reducing the deer herd beyond the wish or desire of the sportsmen. This condition is difficult to regulate as long as the hunter insists on shooting when a doe presents itself as a target. However, I do not think this is of such importance particularly since it has been proven that such over-shot areas can be brought back in a couple of years provided the food conditions are favorable. I believe that appropriate measures can be taken that will increase the natural food for the deer herd. I think this should be done so as not to have an over-browsed forest, for when the forest gets to that stage, we have missed the best.

Where I am most concerned is that the over-browsed deer range does not make such a rapid recovery, and much of our over-browsed range will be practically worthless for years to come for either deer or small game.



The end of a perfect day.

YOU CAN BUILD A DEER HERD, BUT YOU CANNOT BRING BACK AN OVER-BROWSED FOREST IN THE SAME SENSE. IT WILL TAKE YEARS. For that reason alone the deer herd should be systematically controlled. In other words with the previous exceptions the food question is not apparently responsible for the scarcity of grouse this year. If that is a fact, which I believe it is, then I think we are on the right track.

There is no doubt that there are several contributing factors that will have to be taken into consideration and adequately dealt with before our efforts will be of material aid to the grouse population, as I do not believe flies or ticks are so damaging to the grouse that they constitute them their only enemy. We have had many years of gunning with little regard to the interference that our modern civilization has brought upon nature's balance, and it is logical reasoning that corrective measures, good as they may be, will not correct a condition overnight that has taken many years to create.

These are my personal views and I wish you to take them as such, and their worth accordingly.

Fossil remains of a giant flamingo, larger than any flamingo ever known before, has been found in a quarry in South Dakota; the tropics and semi-tropics are the usual home of this bird.

Wildlife Management with Emphasis on the Ringneck Pheasant

(Continued from page 5)



A congenial group of pheasant hunters comparing notes at the end of the day.

vesting many seeds that are used by the pheasant. Corn is the best food and it usually harbors one or more of the important supplementary wild foods like ragweed and foxtail.

In conclusion it should be pointed out that wildlife, and especially the game animals and fur-bearers, is subject to the same improvement methods now being used for domesticated animals and plants. This involves breeding and restocking. Eventually only the game animals, and fur-bearers that are ecologically adapted to the specific conditions of the area and which are economically best suited to meet the demands, will be utilized.

OUTLINE OF FACTORS INVOLVED IN A PLAN FOR MANAGING AGRICULTURAL LANDS FOR WILDLIFE

1. Food and Cover
   - A. Winter food
     1. Fencing to restrict grazing
     2. Restrict burning and cutting
     3. Controlled burning (in special cases)
     4. Controlled grazing
     5. Planting shrubs, trees, and *herbaceous plants*
        - a. Native local species (preferably)
        - b. Exotics (in exceptional cases)
     6. Planting farm crops commonly grown
     7. Introduction of special food crops (food patches)
     8. Crop rotation
     9. Farm practices
        - a. Harvesting and haying
        - b. Fall plowing
        - c. Fence row management
        - d. Cultivation
   - B. Winter Cover
     1. (1, 2, 5, 6, 8, 9a, b, c, d, under A included)
     2. Restricted hunting
     3. Distribution lanes
     4. Woodlot management
     5. Evergreen planting
   - C. Spring Food and Cover
     1. Special Nesting sites
        - a. Woods and brush
        - b. Fence rows
        - c. Weed patch and marsh borders
        - d. Special areas
     2. Individual territory (territorial spacing)
        - a. Woodlots
        - b. Brush cover
        - c. Marsh border
        - d. Fence rows
        - e. Evergreen plantings
        - f. Brush rock pile areas
   - D. Summer Cover
     1. Nesting sites
     2. Nest protection
     3. Flushing bars
     4. Flock distribution and protection
     5. Flock detention
     6. Water availability (not always important)
   - E. Fall Cover and Food
     1. Restricted grazing
     2. Harvesting methods
     3. Fence row, cutting and burning (refrain from)
     4. Field strips of cover to protect against movement off the area
     5. Evergreen planting
     6. Woodlot undergrowth (preserve it)
   - E. Fall Cover and Food (Cont'd)
     7. Restricted hunting, i.e., provide sanctuaries on each area
     8. Routing hunting system
     9. Food plots
     10. Cover-food combinations
     11. Special roosting sites.

Digest of Business Transactions, etc.

(Continued from page 15)

tions of the Commonwealth, the Commission authorized the employment of an experienced soil conservation expert, preferably one with Wildlife Management training, to render special service to cooperators on Farm-Game Projects and to work with County Farm Agents.

Twenty-five years ago the Commission started purchasing land for the use of sportsmen. Since January 1, 1945 a total of 778,736.78 acres of State Game Lands distributed through 63 of the 67 counties of the State have been acquired. The consideration paid for these lands amounted to the tidy sum of $2,954,551.40 or a general average of $3.79 per acre. In addition 38,229 acres comprising many tracts in various parts of the Commonwealth are under contract for purchase. At its recent meeting it agreed to purchase seven more tracts totalling 1,575 acres and conditionally agreed to purchase another tract of 160 acres.

The largest tract accepted was 740 acres in Lowhill Township, Lehigh County to be acquired from the Trustees of the Harry C. Trexler Estate. It is situated adjacent to State Game Lands No. 205 comprising 549.3 acres purchased from the Trexler Estate about a year ago. The other tracts accepted were in Bucks, Pike, Tioga, Clearfield and Potter Counties and were comparatively small additions to the Commission's present holdings in those localities.

The Commission also agreed to purchase 678 acres in Lycoming County which when acquired will become part of a new State Wild Turkey Farm, near Barbours, on the Loyalsock Creek.

The desirability of declaring a dove season for Pennsylvania, at least in the southeastern counties, was discussed and the Commission agreed to give the matter further consideration when it meets to fix seasons and bag limits for 1945, at which time it will recommend migratory bird seasons to the federal authorities.

Realizing the scarcity of conservation reading material for men in the military service, particularly in the overseas canteens, the Commission agreed to send complimentary copies of "GAME NEWS" monthly to all of these recreational centers it is possible to contact.



The high tailing bruin in the above photo was snapped by Mrs. J. R. Mattern, wife of a retired Game Commission Title Abstractor, just after it was released in Potter County. It had previously been trapped in another part of the county where it had been killing sheep.

The Mystery of Migration

(Continued from page 9)



In the circumpolar regions vast herds of reindeer move south every fall.

A great many different kinds of animals migrate, and every year more and more are added to the list of known migrants. The practice may be far more prevalent than we at present believe, and may, in the end, be found to be almost universal. The degree of movement that it entails, however, varies greatly. Elephants have been shown to perform slow migrations for breeding purposes that take nearly ten years to complete, during which time the cows never see the bulls. Troops of some kinds of South American monkeys migrate back and forth every few weeks between two areas of forest—a regular alternation that goes on throughout the years, but which never transgresses the boundaries of the two areas.

One of the most astonishing sights in the world is the migration of land crabs in Jamaica. These creatures dwell in crevices among rocks all over the island, but once a year they all descend at the same time to certain shelving beaches for breeding purposes. They do this simply by following the straightest line possible, so that they scramble many unnecessary miles over obstacles, even houses, that happen to be in their path. The females carry their eggs with them. Each contains a fully developed larva, which is a minute, shrimp-formed creature that can live only in water, and it is to release these in the sea by the bursting of the eggs that the crabs make their weary seasonal journey.

Perhaps the most extraordinary manner of migration is found among the lowly group of insects that includes the aphids, or green flies, so well known to fruitgrowers. There is a species that spends half the year on apple trees and the other half on the stems of grasses. These aphids happen to be used by certain ants as we use cows. They are herded and protected by the ants, and, in return, allow themselves to be squeezed periodically, so that a honeylike fluid which exudes from their bodies may be eaten by the ants. Now, the ants have discovered that the aphids have to migrate and, being solicitous of the welfare of their charges, they have the extraordinary intelligence actually to carry them down from the apple trees and to place them on the grass stems or to take them from the grass up to the apple trees, as the season of the year may demand.

The normal seasonal migrations of many animals may often be referred to as plagues, and some may indeed provide rather startling aspects. I remember once in my youth being accused of introducing several hundred newts into the family domain after dinner, when, in point of fact, I was safely in bed on the top floor of the house. The cause of the host of newts was simply the warm evening, which had prompted my family to leave some French windows open. Through these the amphibians had streamed on their way from hibernation to a near-by pond.

The Highway of the Frogs

The seal trade is dependent upon a seasonal migration, the animals coming from the regions of Nova Zemlya, from the east coast of Greenland and from the channels west of the Hudson Bay inlet to breed on the edge of the ice floes north of Iceland and in the mouth of the St. Lawrence River. The males arrive first, and seize a piece of territory, which they defend against all comers with great savagery. Later, the females arrive and immediately give birth to the little fluffy "white coats" that they have carried since the last meeting with the males a year before. Immediately after delivering their offspring, they are claimed by the males and again inseminated; then the males leave. The mothers linger till the young can fend for themselves; then they, too, leave. For the rest of the year, the fur seals are scattered far and wide over a vast expanse of ocean.

It now appears that most frogs make seasonal migrations to breed. Many tree frogs not only descend to the ground but travel considerable distances to special ponds or rivers. We once had a forest camp in a narrow valley in Africa that led down to a large river. This turned out to be a highway of the frogs. At the beginning of the rainy season we were suddenly invaded one night by a host of rare frogs with green bones that live on the tops of the forest trees. They were traveling on the ground, and in a few moments the tent was covered with green-boned frogs, and when we went outside with a light, the whole world seemed filled with the same species, all traveling down to the river. A few nights later came a host of tiny yellow-and-brown fellows; a few days after, big brown frogs with spurs on their thumbs came hopping by. More than a dozen species went by in the space of as many days, each keeping to itself, and all going to the river. What is more, most of them returned within a month, headed back into the forests to spend the rest of the year.

Globe-Trotting Terns

In the circumpolar regions, vast herds of reindeer move south every fall, and north every spring. They travel in small parties, feeding as they go, but sometimes when the weather changes suddenly, they become jammed together in tremendous droves which travelers have described as covering the flat, barren ground as far as the eye can see. Solid masses of animals sometimes pass without cease for four or five days. Eventually, these vast aggregations break up into small parties again and spread out, for these are true seasonal migrations.

Almost every kind of animal migrates. Lawrence of Arabia speaks of meeting a mass of migrating poisonous snakes while advancing toward Mesopotamia with his Arabs during the last war. The snakes were so numerous and his army suffered so many more casualties from them than from the enemy that he was forced to retreat and make a long detour.

But the champion traveler of them all is probably the Arctic tern, a small, slender, white, gull-like bird with tapering wings and a forked tail. This species nests about the eastern and northern coasts of Canada as far north as Baffin Island and the northwestern shores of Greenland. Small, numbered metal bands have been attached to the legs of nestlings in Labrador and the grown birds recaptured a few months later at the mouth of the Niger River in West Africa and in Natal on the Indian Ocean coast of South Africa. The latter place is a distance of nearly 9,000 miles from Labrador, and as these birds follow an erratic course and as it is unlikely that a sea bird would cross the Kalahari Desert of South Africa, it appears that this individual, retaken in Natal, must have covered well over 10,000 miles. Nor is that the complete picture, for the Arctic tern is found in the Antarctic during our winter. Moreover, it is never met with on the eastern seaboard of either North or South America, while it is well known as a seasonal migrant up and down the western seaboard of both Europe and Africa. From this it has been inferred that this species migrates from Arctic America across the North Atlantic to

Europe, thence down the coast past Africa to the Antarctic Ocean, and back up the same route the following spring—a distance, in all, of about 24,000 miles, or almost equivalent to the total circumference of the earth.

Why should birds perform these prodigious feats? Why should animals migrate at all, and what prompts them to do so? The only answer to this question that seems plausible is the suggestion that the breeding stimulant which was discovered to be the cause of the lemmings' increased fertility is found in the young vegetation—and in the insects that feed upon that vegetation—in the northlands freed from the blanket of winter snow by the warm spring sun. The birds crave this vitamin like a drug.

It is known that in comparatively recent geological times the earth passed through what has been called an Ice Age. The polar ice caps were tremendously enlarged, extending south in North America as far as the state of Kentucky. Animal life, especially in the winter, must have been forced south into the subtropical regions. However, the best feeding grounds, most abundant in the vital breeding stimulants, must then, as now, have been just south of this great sheet of ice in the belt where the summer sun melted the snow, and animals must have flocked to that belt to breed. As the ice caps slowly shrank, this northward flocking of the animals slowly extended until the spring movement became a migration. When the distance became great enough, many birds, on setting out for the warm south to recuperate from the exertions of breeding, found the intermediate areas already fully populated by their own kind, and had to fly over these relatives and seek winter quarters in more southern areas, where they did not infringe the rights of their own kind.

The habit among other groups of animals is often of similar causation, though it may be of totally different origin and have altogether unlike results. For instance, the Jamaican land crabs migrate for the purpose of releasing their larvae from the eggs and perhaps for mating immediately afterward. The astonishing behavior of Atlantic eels, though also carried out for the purpose of breeding, falls into a class by itself, the causes of which are unknown, but for the origin of which there is a fascinating theoretical explanation. This is based on what is known as Wegener's theory of continental drift.

Eeels spend many years of seemingly contented life in the ponds, ditches and rivers of Europe and North America, where they are dark green in color and fairly active. Then all of a sudden their color changes to metallic silver and their shape to a more streamlined pattern, while a radical transformation takes place in their internal anatomy. Then, leaving their safe homes, they go down the rivers to the sea and head out into the Atlantic. Those from Europe head west, those from America head southeast, and both swim onward without pause until they meet over a great deep in the Atlantic Ocean south of Bermuda, where they sink down and disappear forever.

Later, an eruption of tiny, transparent, threadlike creatures with bulging black eyes comes welling up to the surface and, spreading out like an ever-expanding mushroom, streams off in two groups, one to the east and one to the northwest. Those going east keep swimming for three years while they change their shape, until they reach the shores of Europe as the well-known elvers. Those going west also change, but they arrive sooner at the American coast. Both shoals immediately start up the rivers and penetrate farther and farther, until they reach the abodes whence their parents started out. What is more, those that go to Europe are invariably the European species of eel, and those that go to America are just as invariably the American species.

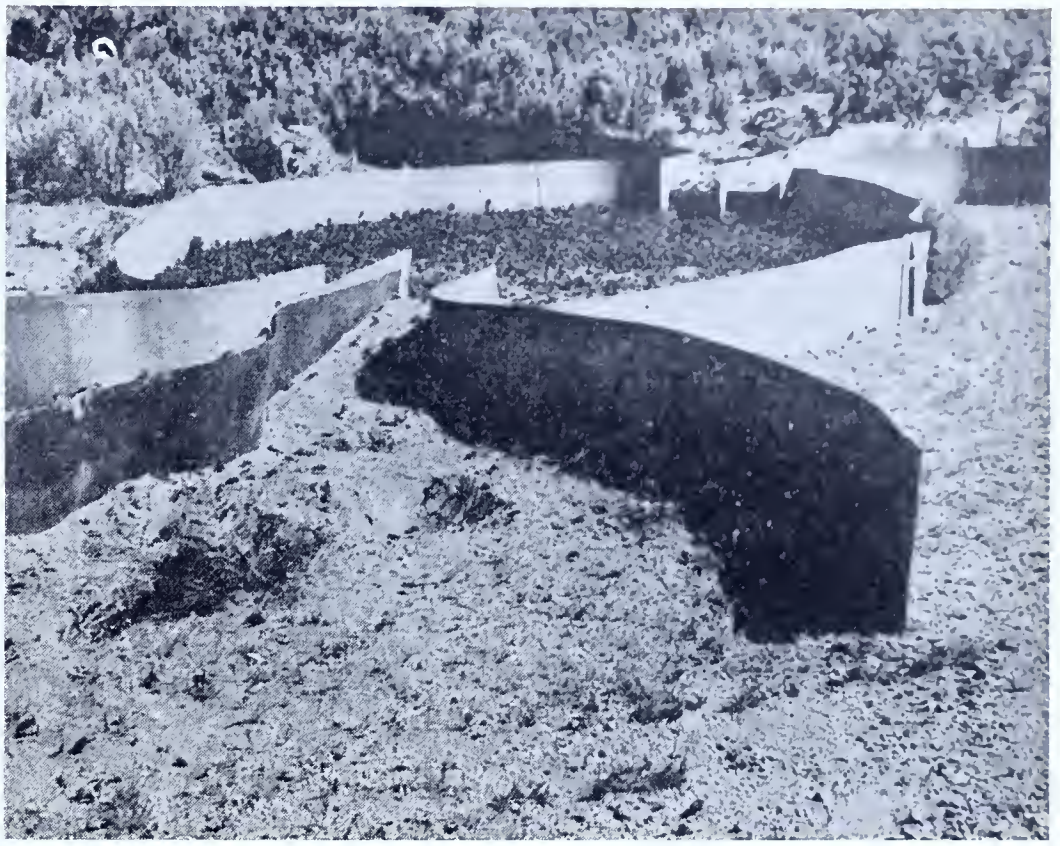
Now, Wegener pointed out that the earth's crust is composed of two layers, the outer one being lighter and thinner, or less deep, than the oceans. Thus the continents are great concave rafts of this outer crust, resting on the second layer, like pieces of peel on a half-peeled orange. Wegener suggested that our earth originally had a complete skin of this outer layer, but that about half was lost by flying off into outer space and that the remainder then cracked up into big pieces and started to drift around to balance the earth, which was lopsided and wobbling. What is more, this scientist went on to show in a most ingenious manner that there is considerable evidence to support his theory.

He started by cutting out maps of the continents, and then, disregarding the oceans, he brought them together and showed that the east coast of North and South America fitted almost exactly into the west coast of Europe and Africa. The degree of junction is alarmingly perfect, as may be seen by the map. Wegener then fitted the other continents together almost equally well merely by bending them a little and swinging some of them round.

Now, should the eels have originated in the sea-filled crack between the Old and the New Worlds when they lay together, and have then developed the habit of spending their time between breeding season in the ponds and rivers of the near-by land on either side of the crack, they would have been called upon to make longer and longer journeys to their breeding grounds as the continents drifted apart, until it eventually became unfeasible for them to make the trip every year. Thus they would have to spend a longer rest period in fresh water and go less frequently to breed. By carrying this process to an extreme, moreover, it will be seen that their behavior would eventually become that which actually obtains among them today, whereby they spend their whole lives resting and storing up energy for their great adventure and then, when fully mature, set out to the ancestral grounds, now thousands of miles away, where the eggs are laid.

The effort now entailed so entirely exhausts them that they never survive or return. Their behavior is, in fact, strong supporting evidence for the astonishing theories of Wegener.

Thus we see that the mystery of migration is a complex problem. It is a varied process, probably of many diverse origins, now maintained by many different recurrent causes and unified only by its object and result—namely, survival. It is a major life process of the whole animal world, and without it a great part of our earth's animal life would probably have long since become extinct. It will remain forever an impressive spectacle to watch, but there is nothing more mysterious about it than about any of the other great processes of nature.



Acme Photo.

An army of grasshoppers, moving northward across Nevada, is impeding automobile traffic across the state through the hazard of slippery roads. The long, black, hard-shelled grasshoppers will find little to destroy unless they move westward. Baffles, eighteen inches high, as shown above, are erected along the course of the invasion. Poison spread in the center of the mass kills the insects before they can escape.

Rations for Bobwhite Quail

(Continued from page 11)

Experiment Two. The five most promising mash mixtures used in Experiment One were fed again in Experiment Two. In addition three mixtures found previously to have been excellent for Ring-necked pheasants (Stadelman and associates, 1944), and one new granular type mash were added.

Results for Experiment Two are summarized in Table 6. Although the groups of birds as a whole were more uniform in this test, there was, as in Experiment One, a distinct segregation on the basis of superiority as determined by the measurements made. Bird quality as acertained by size, apparent health, plumage condition, freedom from injury, etc., was an added measurement of differences between the rations used in Experiment Two.

Mash mixtures 6, 7, 10, and 11 again gave reasonably good results for late-hatched chicks. However, the results were not equal to those secured with pheasant mixtures 12, 13, and 14 fed to groups 15, 16, and 17. While differences in growth, feed usage, and number and quality of birds reared were negigible among the latter three groups, the mortality of group 17 was distinctly the lowest. Mixture 14, fed to this group, had, when used for pheasant chicks hatched in May of the same year, given an exceptionally low mortality, 1.6 per cent to 6 weeks.

It may be observed, Tables 4 and 5, that this superior mixture was simple and modern. It contained 40 per cent of soybean oil meal, the protein level was approximately 29 per cent, and the calcium and phosphorus levels were 1.31 and .84 per cent, respectively, this giving a Ca:P ratio of 1.56:1.

Groups 20 and 21, fed mash mixtures 6 and 7 without the moist Maxco supplement, were inferior to groups 13 and 14 fed the same mashes but given the supplement in addition. However, the only important difference was in early mortality. This was apparently due to the chicks getting mash in

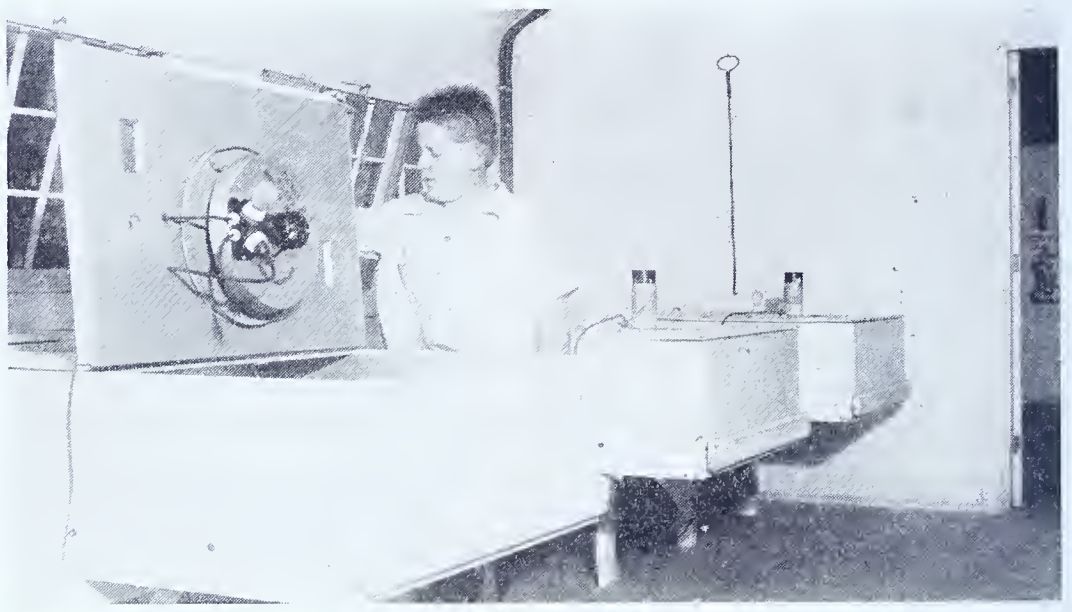


Figure 3. Electric brooder heating assembly used for each group of 100 quail chicks.

their eyes, the eyes then becoming pasted shut, a condition which stimulated eye-picking by the more vigorous birds. This condition lends weight to the suspicion that the Maxco feeding may be of more value mechanically than nutritionally.

Mixture 3, fed to group 19, again gave inferior results. Granular mixture 15, fed to group 19 gave moderately good growth and livability and showed a feed usage comparable to that of the "kernel" pens.

Discussion and Practical Applications

It would be a waste of time to analyze statistically the results secured in the two experiments reported. Valid, ordered information about bobwhite quail chicks is still so limited and management procedures with sizeable groups of chicks are so complex and varied that results are influenced by too many environmental factors to permit accurate analysis. However, sufficiently large populations were used in these tests (100 chicks per experimental group; 200 per treatment group as reported in the tables) to give ample evidence by means of which the mash mixtures studied can be easily classified as poor, fair, and good.

It would be manifestly unfair to compare the rations used in Experiment One with different rations used in Experiment Two. It would also be objectionable and faulty to attempt a severe comparison between results from the same mash mixtures used in both tests. It is justifiable to examine closely comparative results secured with different groups of chicks hatched at different periods and brooded in different pens but fed mash mixtures based on the same formula. Such results may also be compared with similar results obtained with other mixtures fed in conjunction with these basal mixtures fed in each experiment.

In line with this reasoning mash mixtures 6, 7, 10, and 11, fed to groups 6 and 13, 7 and 14, 10 and 12, and 11 and 22 respectively, serve as bases for comparison of the fifteen experimental mixtures studied. Because of the difficulty experienced in feed usage, comparisons discussed here are limited primarily to growth and mortality supplemented by bird quality as measured in Experiment Two.

In Experiment One, the groups fed rations 6, 7, 10, and 11 were so much better than all other groups in both weight and livability that there is no doubt of their superiority. As a matter of fact, not a single 100-chick group on the other rations averaged in weight within 4 grams of the smallest average in any similar group fed these four best rations. The smallest mortality in any 100-chick group fed the other rations was 25 per cent, the greatest in any of the 100-chick best ration groups being 14 per cent.

In Experiment Two, in which the six poorest rations of Experiment One were replaced, mixtures 6, 7, 10, and 11 again gave reason-

TABLE 1—COMPOSITION OF MASH MIXTURES USED IN EXPERIMENT ONE (In Pounds)

(To each was added: salt, 0.5 lb.; cod liver oil (400 A.O.A.C.), 0.25 lb.; and $MnSO_4$, 0.025 lb. Each ration totalled 100.275 pounds.)

Group	1	2	3	4	5	6	7	8	9	10	11
Ground yellow corn	20.0	20.0	15.0	30.0	33.5	11.2	17.5	26.0	25.0		
Wheat bran	15.0	5.0	15.0	15.0	15.0	15.0	10.0	10.0	10.0		
Wheat flour middlings	12.5	...	15.0	15.0	15.0	12.5	10.0	10.0	10.0		
Ground oats	10.0	15.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		
Alfalfa leaf meal	5.0	10.0	5.0	7.5	7.5	5.0	5.0	5.0	7.5		
Dry skim milk	12.5	10.0	9.5	2.5	7.5	12.5	8.0	10.0	5.0		
Soybean oil meal	...	6.5	15.0	10.0	...	19.5	12.0	5.0	12.0		
White fish meal	11.0	10.0	10.0	2.5	5.0	2.75	...	5.0	10.0		
Menhaden fish meal	...	...	...	...	...	...	15.0	...	...		
Meat scraps (50% protein)	...	...	...	2.5	5.0	11.05	...	11.5	5.0		
Meat scraps (55% protein)	...	5.0	5.0	...	...	...	12.0	...	...		
Meat scraps (65% protein)	13.5	...	...	...	...	...	...	...	...		
Ground limestone	...	...	...	1.0	1.0	...	...	2.0	2.0		
Oyster shell flour	...	3.0	...	...	...	...	...	...	...		
Steamed bone meal	...	...	...	1.0	...	...	...	...	...		
Ground wheat	...	15.0	...	...	...	...	...	...	...		
Corn gluten meal	...	...	...	...	...	...	...	5.0	...		
Riboflavin concentrate	...	...	...	2.5	...	...	...	...	...		
Dried brewers' yeast	...	...	...	...	...	...	...	...	3.0		
										Commercial "Kernel" mixture Guaranteed analysis—30% protein	Commercial "Kernel" mixture Guaranteed analysis—26% protein



Figure 4. Brooder pens; the droppings pan, bedded with shavings, of one pen is partly withdrawn from under the wire floor.

ably good results. However, they did not compare favorably with mixtures 13, 14, and 15 in either growth, mortality or number of good birds reared. They were again distinctly better than mixture 3 and mixtures 6 and 7 fed without scalded Maxco, but were no better than mixture 15. Group 13, fed mixture 6, was more deficient on all counts than would be expected. This was due to definitely poorer growth and higher mortality in pen 13b. No reason is known for this condition.

Summary

Four thousand four hundred day-old quail chicks were used to evaluate 15 mash mixtures. On the basis of all available evidence, it may be concluded that: 1. Mash mixture 14, fed to group 17, was the best feed offered as measured by weight, livability and number or per cent of good birds reared to 6 weeks of age.*

2. Mixtures 12 and 13, fed to groups 15 and 16, were about as good as mixture 14 in growth, feed usage, and number of good birds reared, but somewhat poorer in mortality results.

3. Mixtures 7 and 11 were satisfactory quail feeds but did not measure up to mixtures 14, 12, and 13. Mixtures 10, 6, and 15 were also satisfactory.

4. Mixtures 1, 2, 3, 4, 5, 8, and 9 were definitely unsuited for quail.

With the exception of 5424 chicks in two groups in which the mortality, definitely due to experimental management procedure and inexperienced brooder attendants, was 27.4 and 25.44% respectively, the remaining 15,759 chicks started completed the six-week brooding period with a mortality of only 1788 birds or 11.34%. The results obtained from late hatched birds merits special note. The last four hatches of the season totalled 8.190 chicks hatched July 6th to July 27th. Of these 3,898 were brooded in the brooder house shown in Figure 1,—3,629 in another big brooder house, and 663 in colony houses. These chicks completed the six-week brooding period with a total mortality of 854 birds or 10.43%.

(Footnote prepared by V. T. Warfel, Superintendent of Fisher State Game Farm.)

(Continued on page 30)

* Since these experiments were completed the Pennsylvania Game Commission has reared many thousands of quail on ration 14. In 1944, 17,883 quail were raised with a total brooder mortality of only 15.31 per cent to six weeks of age. This was not only the lowest qail mortality for any brooding season on the Fisher State Game Farm, but the quality of the birds at six weeks, based on vigor, uniformity, and good feathering, was the best.

TABLE 2—CHEMICAL ANALYSES OF MASH MIXTURES USED IN EXPERIMENT ONE (In Percentages)

Group	Maxco	1	2	3	4	5	6	7	8	9	10	11
Moisture	8.06	8.53	7.80	8.23	8.56	8.90	9.11	8.07	7.98	8.99	9.01	8.14
Ash	2.68	13.15	13.89	11.89	8.75	9.90	9.80	8.68	11.47	13.91	7.98	9.95
Ether Extract	3.36	5.68	4.36	4.76	4.64	4.94	4.30	5.58	4.84	4.65	6.23	7.53
Protein	23.69	23.69	19.19	23.38	18.69	17.19	28.00	31.94	23.13	21.25	24.88	27.56
Crude fiber	1.46	5.60	5.84	5.98	6.87	6.04	5.98	5.07	5.46	5.76	4.93	4.57
Calcium	.29	3.56	4.07	3.17	1.77	2.34	2.08	1.81	3.19	3.86	1.85	2.27
Phosphorus	.57	1.22	1.60	1.35	1.08	1.24	1.21	1.25	1.54	1.28	0.95	1.20
Managnese	.0034	.0103	.0088	.0100	.0110	.0114	.0127	.0133	.0116	.0117	.0103	.0091
Ca:P ratio	.51:1	2.92:1	2.54:1	2.35:1	1.64:1	1.89:1	1.72:1	1.45:1	2.07:1	3.01:1	1.95:1	1.89:1

TABLE 3—BODY WEIGHTS, FEED USAGE AND MORTALITY, BY TREATMENTS; EXPERIMENT ONE

Group No.	Mash No.	Average weight in grams at Day-old	Average weight in grams at 6 weeks	Feed usage in pounds per 100 chicks to six weeks	Mortality in per cent to six weeks
1	1	6.52	65	53.5	51
2	2	6.52	52	45.7	59
3	3	6.10	76	58.6	33
4	4	6.24	61	48.8	29
5	5	6.10	49	37.2	53
6	6	6.24	89	63.6	12
7	7	6.38	96	63.1	12
8	8	6.38	70	53.0	46
9	9	6.31	61	49.5	29
10	10	6.24	86	48.2	11
11	11	6.24	87	46.7	7

TABLE 4—COMPOSITION OF MASH MIXTURES USED IN EXPERIMENT TWO (In Pounds)
(To each was added: salt, 0.5 lb.; cod liver oil (400 A.O.A.C.), 0.25 lb.; and $MnSO_4$, 0.025 lb. Each ration totalled 100.275 pounds)

Group	12	13	14	15	16	17	18	19	20*	21*	22
Mash Mixture	10	6	7	12	13	14	15	3	6	7	11
Ground yellow corn	Commercial "Kernel" mixture Guaranteed analysis—26% protein	11.2	17.5	12.5	16.5	9.5	...	15.0	11.2	17.5	Commercial "Kernel" mixture Guaranteed analysis—30% protein
Yellow cornmeal (bolted)		...	...	...	...	...	29.5	...	...	...	
Wheat bran		15.0	10.0	10.0	10 0	10.0	15.0	15.0	15.0	10.0	
Wheat flour middlings		12.5	10.0	10.0	10.0	10.0	...	15.0	12.5	10.0	
Ground oats		10.0	10.0	10.0	10.0	10.0	...	10.0	10.0	10.0	
Alfalfa leaf meal		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Dry skim milk		12.5	8.0	...	...	...	10.0	9.5	12.5	8.0	
Dried whey		...	...	10.0	5.0	5.0	...	...	...	...	
Soybean oil meal		19.5	12.0	30.0	25.0	40.0	20.0	15.0	19.5	12.0	
Corn gluten meal		...	...	...	...	...	5.0	...	...	...	
White fish meal		2.75	...	...	...	...	5.0	10.0	2.75	...	
Menhaden fish meal		...	15.0	4.0	3.0	2.0	...	...	...	15.0	
Meat scraps (50% protein)		11.05	...	8.0	12.0	3.0	10.0	...	11.05	...	
Meat scraps (55% protein)		...	12.0	...	...	...	...	5.0	...	12.0	
Ground limestone		...	...	...	...	1.0	...	...	...	...	
Steamed bone meal		...	...	...	...	1 0	...	...	...	...	
Dried brewers' yeast		...	...	...	3.0	3.0	...	...	...	...	

* No scalded Maxco feeding was practiced with groups 20 and 21.

Rations for Bobwhite Quail

(Continued from page 29)

TABLE 5—CHEMICAL ANALYSES OF MASH MIXTURES USED IN EXPERIMENT TWO (In Percentages)

Group	12	13	14	15	16	17	18	19	20*	21*	22
Mash Mixture	10	6	7	12	13	14	15	3	6	7	11
Moisture	10.02	10.06	10.06	10.15	10.42	10.35	9.74	9.56	9.86	9.80	9.27
Ash	7.90	9.51	8.62	7.54	8.24	7.40	9.66	12.06	9.34	8.93	9.56
Ether Extract	6.31	3.73	5.68	4.16	4.33	2.91	3.42	4.30	4.68	6.05	6.49
Protein	24.88	25.44	29.94	27.44	27.31	28.94	25.31	21.56	25.81	28.13	28.69
Crude fiber	4.77	6.60	5.70	6.75	6.80	7.28	5.01	6.16	6.70	6.69	4.26
Calcium	1.79	2.16	1.96	1.22	1.72	1.31	2.58	3.25	2.09	2.00	2.31
Phosphorus	0.86	0.92	0.94	0.84	0.93	0.84	0.87	0.90	0.89	0.88	0.87
Manganese	.0113	.0102	.0108	.0100	.0124	.0110	.0084	.0126	.0102	.0126	.0108
Ca:P ratio	2.08:1	2.35:1	2.09:1	1.45:1	1.85:1	1.56:1	2.97:1	3.61:1	2.35:1	2.27:1	2.66:1

* No scalded Maxco feeding was practiced with groups 20 and 21.

TABLE 6—BODY WEIGHTS, FEED USAGE, MORTALITY AND PERCENTAGES, GOOD BIRDS REARED, BY TREATMENTS; EXPERIMENT TWO

Group No.	Mash No.	Average weight in grams at Day-old	Average weight in grams at 6 weeks	Feed usage in pounds per 100 chicks to 6 weeks	Mortality (per cent to 6 weeks)	Good birds at 6 weeks No.	Good birds at 6 weeks Per cent
12	10	6.38	78	46.4	31	131	94
13	6	6.24	72	62.5	41	93	79
14	7	6.38	84	61.8	30	136	95
15	12	6.52	88	64.7	19	162	99
16	13	6.52	91	66.0	18	162	95
17	14	6.52	91	66.3	13	168	97
18	15	6.24	79	51.7	33	115	91
19	3	6.24	63	65.4	55	51	57
20	6*	6.52	78	64.8	52	90	92
21	7*	6.24	75	63.7	44	98	88
22	11	6.24	84	51.7	25	142	97

* No scalded Maxco feeding was practiced with groups 20 and 21.



Severe winters deplete the ranks of Bobwhite.

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The Pen Is Mightier

(Continued from page 17)

It is hoped that when next fall approches, many other associations and schools will work together on the "Hunt Safely" idea. The more it is kept in the limelight, the more safety-minded people are going to become. Let's keep the ball rolling.

By Gus Clinos

Donald Sisler, thirteen, likes to go hunting with his .22 rifle. His Uncle, Paul Sisler, thirty-three, likes to play practical jokes. The uncle hid in some bushes and wailed like a wildcat. Donald fired. Uncle Paul will recover, physicians say.

This incident is typical of the defeats suffered by General Safety on the field of hunting. The situation is serious. The only way to cut down on Major Accident's victories is to supply the hunters with a secret weapon. This weapon is education. Through education hunters can take the offensive against Major Accident. The question is, who is to take up the task of education? There are many hunting and sportsmen's clubs all over America. Through these clubs, hunters could be equipped with the knowledge it takes to be a safe hunter. It's up to you, hunters. You can help save lives and defeat Major Accident.

By Dorothy Luciana

Bright red jackets, newly oiled guns and 1944 licenses are ready and hunting season opens with a loud bang. Beware, rabbits, quail, ducks, deer and *hunters!* Along with all hunters lurks a dreaded enemy. It takes many lives every year, and only you can step in its way and kill it!

Who or what is this enemy that I speak of? Just plain carelessness. It doesn't sound like much of an enemy, does it? Yet this three syllabled word brings tragedy into gay happy homes every year. Until you can look yourself in the eye and say, "I hunt with safety," the hunter's foe will continue to do its dirty work.

So, when you take down your gun from the attic for that long awaited hunting trip, remember that carelessness spells *danger* while safe hunting means a wonderful duck dinner!

By David Eckhardt

Look before you shoot! That sounds sensible, but just how many hunters obey this basic rule of good hunting? It would be a good thing if more of them did. Many are the hunters, stalking some prey, who upon seeing a slight movement in the undergrowth, fire and unwittingly hit their buddies. This has happened too often to joke about and it happens again and again. Every hunter, green or veteran, should review the game laws and the various sportsman's codes before he goes hunting each fall so as to avoid such accidents. To be a good sportsman, one should always remember this basic rule to a safe and enjoyable quest. Take no chances! Look before you shoot.

HARE HUNTIN'

IF the deer herd in the northern forests of Pennsylvania is ever reduced commensurate with its food supply, conditions for snowshoe rabbits and other forest small game will be improved considerably, and they will increase accordingly. This should be especially true of hares, which have only been holding their own, if you can call it that, in recent years. At one time they were obviously plentiful, even based on field officers' estimates of the bag which experience has proved are usually conservative. As a matter of information let's look at the record since 1930:

Year	*Number*
1930	20,602
1931	26,245
1932	19,890
1933	23,139
1934	17,995
1935	8,659
1936	Closed
1937	2,240
1938	2,120
1939	Closed
1940	Closed
1941	Closed
1942	6,019
1943	3,716

Hunting pressure in earlier years may have resulted in a gradual depletion of these animals but it doesn't seem logical in view of the fact that the annual kill was so consistent for about five or six years running beginning with 1930. The primary factor then, aside from predation which plays a certain part, is food. The hare has some protection against its enemies, particularly in winter.

He seems to have a bit of chameleon in his nature. In the summer he is mostly brown, matching his surroundings. In early autumn he is still mostly brown. In winter in our latitude some individuals turn white, while others remain brown or only partly change. However, that's beside the point. They are still darn good small game animals worthy of any chase and good eating in the bargain.

And can he run? And how! That's why he's still "in the running" here in Pennsylvania. There are only two groups of snowshoes—the quick and the dead. The ones you see moving belong to the former class.

A member of the hare family, much larger than the cottontail, with longer legs, the snowshoe or ghost rabbit needs all his extra limb power. Being a hare he does not hole up, but depends upon speed, cover, and natural cunning to protect him from his enemies. Skilled in all the tricks of the trade, he will run as long as a dog will run him, performing hairpin turns, back-tracking, sudden side jumps of great length, and as nice an assortment of elusive tactics as you could ask for to test your hounds.

When first jumped, and unless pushed too fast by the trailing hounds, the hare usually makes one or two complete circles. If he is pursued by slow hounds his circles are usually not of great diameter, although they are generally slightly wider than those of the average cottontail. After circling, if still pursued and pushed a little, he bolts the country for a while, takes the hounds far out of hearing, and makes a wide circle worthy of a fox. If the pursuit continues and the trail is not lost, he will finally come back.

You get a real chase and a real thrill hunting snowshoes. With a pack of slow-trailing, bugle-voiced bassets, most of the baying will be within hearing, for the slow hounds bring the game around in smaller circles than do tall, fast hounds.

Of excellent nose, built close to the ground, careful, painstaking workers, the bell-toned bassets speak out with surety when hot on the trail. A pack of them, or even two or four, make fine music as they circle their wary quarry around to the waiting hunter.



Paul M. Penney proudly displays a 6-point 175 pounder killed in Elk County during the 1944 season.

The snowshoe is easier to run than to eat. A young one that is fairly fat, and fairly fat is about as fat as these rabbits ever get, is fair eating when fried to a nice brown. But the old ones are just a shade more tender than harness leather and taste a great deal like an old saddle.

The snowshoe is also easier to chase than to shoot, despite his great size and apparent bulk. In the open, broadside, he makes a fair mark if he runs at a regular and reasonable speed, and really gets out into the open for any considerable distance at the right range. More often than not he doesn't. He is a woods rabbit and likes cover.

When the hare wants them to, his great legs take him out of range in nothing flat. He can run at more speeds than almost anything of his size and shape. He has more gears and speeds than a big truck, and he can get away from a sitting start faster than anything short of a grouse. All his life he has dodged around fallen trees and rocks, and he is an artist at getting behind them. His great speed at various levels and in various directions usually leads the embryo hunter to shoot where the rabbit was a second ago. Hence his long life.



He seems to be a chameleon in nature.

The frigate bird, also known as the man-of-war, lives principally on fish but they seldom catch their own; they take them forcibly from other fisher-birds.

Baby sea lions learning to swim gurgle and blow very much like a human baby in a bathtub.

Wildlife Stamps for 1945



Realizing the truth of the old adage, "In union there is strength," the Tarentum District Sportsmen's Club, Inc. has set a membership goal of 1,000 for 1945. Last year the club reported 644 members.

The Tarentum Club, one of the oldest sportsmen's clubs in the State, is the proud possessor of its own 105 acre farm.

Keep up the good work, boys!

GIANT NEW YORK BUCK HIGHLIGHTS RECORD DEER SEASON

The crowning event of New York's most successful deer season, in which a record of 26,305 deer were taken, was the bagging of a buck that weighed 310 pounds dressed. In announcing the kill, the New York State Conservation Department estimated the animal, shot by John S. Smith, Jr. of Bergen, to weigh more than 370 pounds when alive. This would appear to top, by a substantial margin, the 316-pounder recently shot by Lester Averill of Dixfield, Maine.

Like Sir Galahad, who, after searching the world for the Holy Grail found it right at home, Charles H. Mundis of York returned from an unsuccessful week of deer hunting in Clinton County and killed a seven-point buck in the Forge Hills, only two miles from his home. The deer, killed on December 14, weighed 115 pounds drawn.

William Bugar of Rock Run has his own ideas about virtue being rewarded. He did not take time off from his vital job as a crane-runner at the Lukens Steel Company plant at Coatesville to go deer hunting in the western part of the State, as he had wanted to do. He stayed on the job. And when he was finished work at 3 o'clock he drove out to a spot near Sandy Hill where he hoped he might see some game.

He did. Only an hour after he had left work, Bugar saw an 8-prong buck about 100 yards distant, and dropped it with one shot. He was home with his bag before dark.

City Slickers

(Continued from page 7)

Brought ashore and taken by truck to be released in Wayland, Mass. woods.

Boston, Mass., Oct., 1934—Yellow-breasted chat, one of the rarest birds to be seen in Massachusetts, flew into an office window on Milk Street (the heart of Boston's financial district) to drop exhausted. Was revived and released from the same window, whence it flew off none the worse. A warbler, rare in Massachusetts, in the midst of one of Boston's busiest sections!

Boston, Mass., Early Winter, 1936—Red fox captured IN A TREE in Public Gardens. Taken to Franklin Park Zoo.

Pasadena, Cal., Oct., 1930—Buck mule deer drinking from artificial goldfish pool within 10 feet of side door of residence.

Other facts, equally extraordinary, could no doubt be cited from records in many cities from which I have no reports at hand.

All this brings about the realization that naturally shy creatures of the wild do come into man's busiest habitations, whether driven by storms, hunger, curiosity or pursuit. And the conclusion that may or may not be drawn is: if you want to see some very rare bird or extremely shy animal go to 42nd and Broadway or Broad and Market Streets rather than to remote swamps or deep wilderness woods.

The Williamsburg Sportsmen's Association, of Pennsylvania, is planning to send News Letters to its members in the Service from time to time. Of a total of 231 members for 1944, 51 of them are in the Armed Forces. Last Christmas the club sent each one a carton of cigarettes and a membership card for 1944. It felt that remembering them just at Christmas time was not enough. Many ideas were presented as to how closer contact could be made with them throughout the year and the News Letter seemed to be the best.

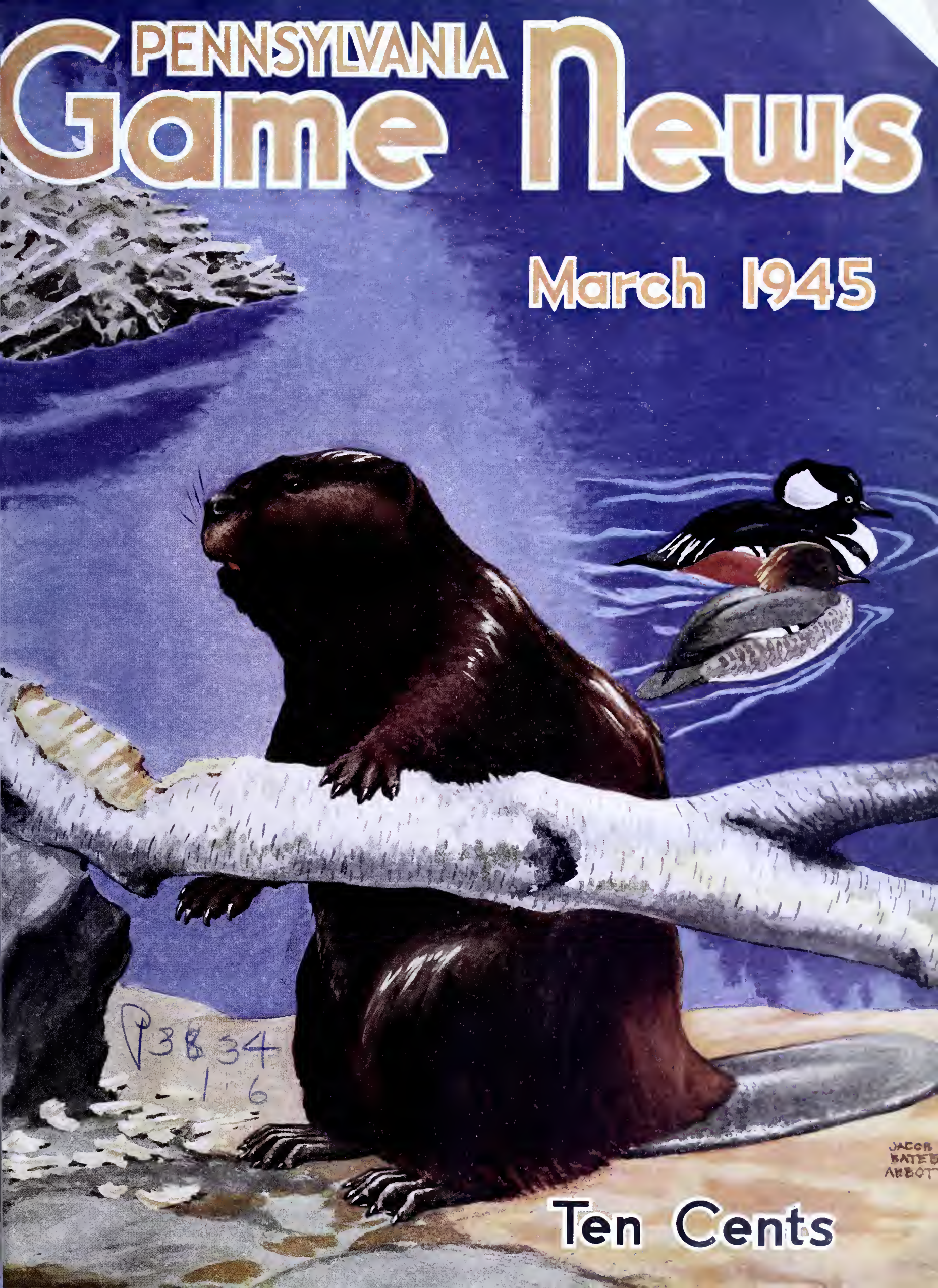
The Association has sent over 100 copies of these letters to its members and to non-members who are interested in hunting and fishing. It's a darn good idea and there are other Clubs that may want to do the same thing.

Answers to WHAT'S WRONG

1. Bull moose shed their antlers just after the rutting season (autumn). It takes about 4 months for the new set to become full-grown. In deep snow time, as shown in the drawing, the bull would be antlerless.
2. Nothing wrong with this one. Solitary sandpipers nest in abandoned robins' nests and rusty blackbirds' nests in spruces and tamaracks in Alberta.
3. The Rocky Mountain "goat" is not a true goat at all, but more nearly related to the antelopes and perhaps the more closely to the chamois of European Alps.
4. The falcons, of which the duck hawk is a famous representative, strike their prey with talons closed, in a "fist," after a stoop. They later catch, in mid air, the dead or stunned victim as it plummets downward.

PENNSYLVANIA Game News

March 1945



P3834
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JACOB BATES ABBOTT

Ten Cents

PENNSYLVANIA GAME NEWS

PUBLISHED MONTHLY BY THE PENNSYLVANIA GAME COMMISSION, HARRISBURG, PENNSYLVANIA

COMMONWEALTH OF PENNSYLVANIA

EDWARD MARTIN, GOVERNOR

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VOL. XV, No. 12

EDITORIAL

March, 1945

IN THIS ISSUE

★

"It's an Ill Wind . . . "

★

Bob's Private Life
By C. R. Studholme

★

History in the Making
By W. Gard. Conklin

★

Well, What's Wrong?
By Jacob Bates Abbott

★

Signs of Spring
By N. R. Casillo

★

Importations of Live Birds and Animals
By Talbott Denmead

★

Woodchuck Defense
By W. Z. Bradley

★

The Odds were Against Him
By The Editor

★

Bushy Tails Like Butternuts
By R. L. Watts

★

With Those in The Service

★

Cover by Jacob Bates Abbott

PROCLAMATION

Arbor Day--Bird Day and Conservation Week

April 9, 1945, and the week of April 9, 1945

The fertile valleys, heavily wooded hillsides, and rich mineral deposits of Pennsylvania are unfailing sources of food, lumber, and minerals. They are interwoven with industry, labor, agriculture, home, recreation, and citizenship, and, as such, become life-giving assets to be wisely used not only in the present but with a view to posterity.

Arbor and Bird Days and Conservation Week are a challenge to every citizen to conserve all natural resources and make Pennsylvania a more bountiful and beautiful State in which to live. These annual celebrations are occasions when men, women, and children should take part in a constructive way by planting shade, fruit, and ornamental trees, by reforesting hillsides or vacant plots, by beautifying school grounds with shrubs, vines, and flowers, and by providing shelters and water fountains for birds.

The splendid example set by such a pioneer leader as Dr. J. T. Rothrock, father of forestry in Pennsylvania, should be a source of inspiration to every citizen in the Commonwealth in furthering the conservation of all natural resources from which the wealth of Pennsylvania is derived.

NOW, THEREFORE, I, EDWARD MARTIN, Governor of the Commonwealth of Pennsylvania, in accordance with the letter and spirit of the laws of the Commonwealth, hereby designate and proclaim Friday, October 20, 1944, and Monday, April 9, 1945 as Arbor and Bird Days, and the week of April 9, 1945 as Conservation Week, and urge that these days be suitably observed by the planting of trees and shrubbery and by group and community programs stressing the value and importance of trees, forests, and bird life to our well-being. All school administrators and teachers, together with their pupils in the schools of this Commonwealth, are urged to devote time and thought to the study, either in the classroom or out-of-doors, of the conservation of natural resources.

GIVEN under my hand and the Great Seal of the Commonwealth, at the City of Harrisburg, this tenth day of October, in the year of our Lord, one thousand nine hundred and forty-four, and of the Commonwealth the one hundred and sixty-ninth.

EDWARD MARTIN

BY THE GOVERNOR:
C. M. MORRISON,
Secretary of the Commonwealth

ATTENTION!

Dear Reader:

We know you are wondering why you do not receive your magazine promptly, and do not blame you for becoming impatient at times.

The reasons are manifold and beyond our control. Lack of manpower and scarcity of paper are the two major ones. Our publisher is doing all he can with what he has, but he hasn't enough and can't get it.

Under the circumstances we beseech you to be tolerant, bearing in mind that the only thing that counts these days is the speedy prosecution and conclusion of the war which is responsible for so many irregularities.

Your subscription will be entered. You will get your magazine.







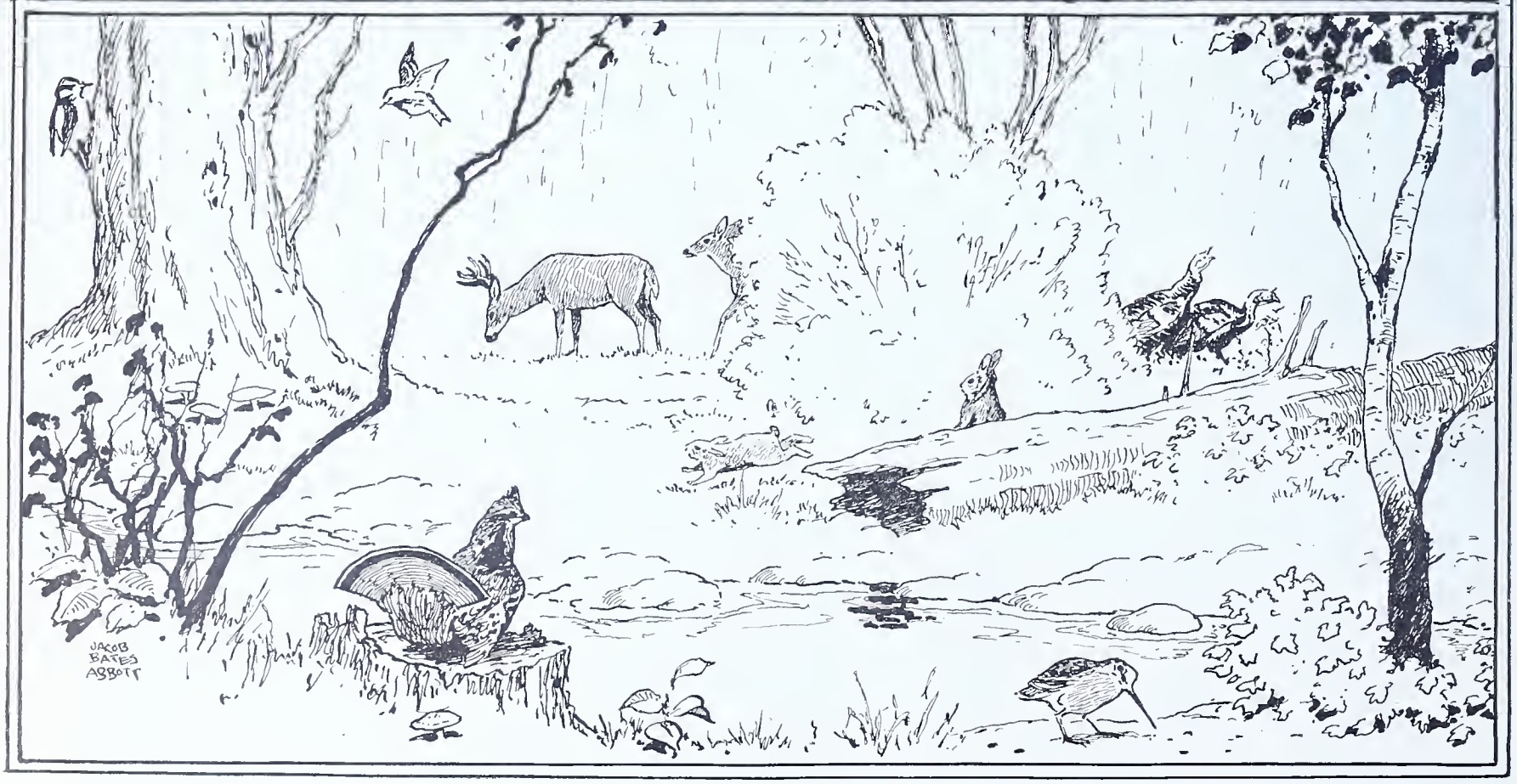

JACOB
BATES
ABBOTT



Photo by Bob Ford

Deer were hard pressed for food in many sections until extensive browse cuttings by Game Protectors and sportsmen provided emergency rations.

"IT'S AN ILL WIND.."

THERE'S an old saying, "It's an ill wind that blows no good." The ill wind that swept blizzards and drifting snow over Pennsylvania last winter and threatened the game of the State with starvation blew a little good with it, as all ill winds are supposed to do. It proved that all conservation-minded citizens, Game Commission personnel, sportsmen, farmers, Boy Scouts and other interested persons, can work together as a unit for a common goal.

One of the most extensive game feeding campaigns in the history of the Game Commission was undertaken last winter by its field personnel, sportsmen, farmers, Boy Scouts, rural mail carriers and others interested in wildlife.

This program did not begin with the arrival of the first heavy snows. It was planned months in advance, even to allocating funds to purchase grains and other food. When the State became snowbound and drifts closed roads and made it impossible for game to secure food, the program was accelerated.

Early in the winter the Commission expressed to its field personnel the need for stepped-up feeding operations and urged them to make release cuttings, thinnings, etc., on sections of State Game Lands where they were needed and where they would supplement the natural food for deer which was buried under the crusted snow. During the past year 47 lumber operations have been in progress on 30 separate units of State Game Lands, comprising an area of over 7500 acres of forest lands. A large amount of browse was provided by this accelerated timber sale program on State Game Lands but field men were instructed to make release cuttings also in other sections of the lands and to solicit permission for browse cuttings on privately owned lands. The Commission also urged that its field personnel, which is greatly reduced because many of the men are in military service, obtain help on the project wherever possible and that the help of sportsmen's groups, Boy Scouts, etc., be enlisted.

The Commission also received permission from the Department of Forests and Waters to conduct browse cuttings on State Forest Lands. The permission was not only granted, but employes of that Department were instructed to aid wherever possible. This is not the first time the two Departments have worked together for a common cause in the conservation field. Under the supervision of District Foresters and local Rangers, sportsmen and Game Protectors made cuttings and thinnings that not only provided browse for the deer and cover for smaller game but also rid the forest of weak and inferior timber growths thus making more room for the healthier species.

Small game, especially wild turkeys, was handicapped as much as the deer by the heavy snows. Feeding stations in many of the State's wooded areas were kept supplied with grain. In one month alone there was made available over 5,000 bushels of corn, oats and wheat raised which represented the Commission's share of grain raised by share-croppers on various game lands throughout the Commonwealth. In addition to this the Commission purchased during a single month 6,245 bushels of ear corn, scratch grain, cracked corn and shelled corn.

When drifts closed the roads the field employees opened them with tractors wherever possible. Where the tractor wasn't heavy enough for the job of clearing away the securely packed drifts, road graders and snow plows were rented wherever they could be obtained. It was necessary to open some of the backroads so that officers and others equipped with snowshoes, could get back to the deer herds and turkey flocks.

Early in the winter when it first became evident that the season was going to be a severe one the Commission issued news releases to press and radio. These releases stressed the necessity of artificial feeding during the dire emergency and appealed to sportsmen, Boy Scouts, rural mail carriers and other citizens to do their part. Local publicity programs were conducted by field personnel.

While the actual work was done by the Commission and those cooperating, credit for keeping the program before the public belongs to the splendid publicity given it by the newspapers and radio networks.

Sportsmen's organizations probably led the parade on the list of those cooperating with the Commission's program. Since sportsmen have the most to gain by keeping game alive and the most to lose if the game population is depleted, they manifested much interest and put forth considerable effort to do all they could for the starving wild creatures.

In numerous sections of the State, sportsmen's groups formed feeding caravans which collected grains and waste greens and trekked into the country at regular intervals to distribute them. These trips were usually made on Sundays and holidays when most of the men would be free to participate. Anybody, regardless of whether or not he was a member of the organization, was invited to go along.

The fact that no reimbursement was made

(Continued on page 27)



Photo by W. Bryant Tyrell

While this picture was being taken only the male would come to the nest. The blind apparently frightened the female.

BOB'S PRIVATE LIFE

By C. R. Studholme

Photos by W. Bryant Tyrrell and the Author

PERHAPS the most widely known upland game bird in the United States is the bobwhite quail. This fine little bird is known to the residents of a large portion of the country. In the southeastern states of Georgia, Florida, and the Carolinas are found the greater numbers of quail. Pennsylvania, with its occasional severe winters, is one of the northernmost states within the normal range of this bird.

Some research work has been done on the bobwhite in Pennsylvania. Richard Gerstell, as Chief of the Pennsylvania Game Commission's Division of Propagation and Research, supervised a series of experiments at the Commission's Loyalsock Research Station. The findings of these experiments have been published as Research Bulletin No. 3, entitled, "The Place of Winter Feeding in Practical Wildlife Management." Mr. Gerstell found that the ability of the bobwhite to withstand periods of severe winter weather depended largely on the size of the covey or group of birds. For example, he found that a bevy of ten birds might be expected to withstand more severe hardships than a single bird. This he attributed to the fact that when possible under adverse weather conditions quail roost in close formations, thus protecting one another from exposure. It was also learned that individually bobwhite is not a very hardy specimen, and in this region it is strongly recommended that no covey be reduced to less than eight.

Ralph I. Blough and David H. Jenkins, while students at Pennsylvania State College, did some work on quail range requirements, winter trapping and holding techniques, marking and release of quail, and other related subjects. Unfortunately this work was terminated by the advent of war.

Bobwhite is essentially a bird of the cultivated fields, brush lots, weed patches, fence rows, and gullies associated with agricultural areas. Although he may be encountered occasionally some distance within unbroken forests, this is not his regular habitat. Movements of coveys or individuals into these unusual environments is thought to be the result of continued harassment of the bird on its normal range. To escape annoyance, bobwhites are thought to seek sanctuary in heavy cover, probably returning to their native haunts when food conditions drive them out of the woods, or when the cause of their annoyance no longer exists.

Being a gregarious bird, fond of the company of others of its kind, except during the mating and nesting seasons, bobwhite spends the winter in groups called coveys or bevies, the nucleus of which is usually a family unit of the previous nesting season. This group may vary in numbers from time to time as lost members or small remnants of other groups attach themselves to it. Accident, predation, wandering, or death may account for a decline in the original numbers of any group. These flocks of birds were found to number from four to twenty individuals at the close of the 1943-44 winter season.

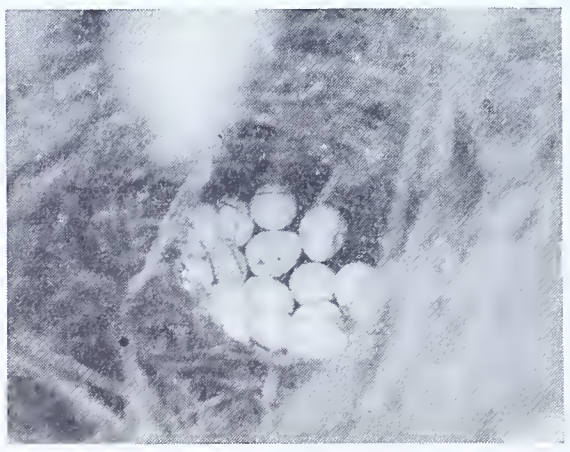


Photo by the Author

Typical arrangement of eggs of completed clutch.

Apparently wandering birds are accepted readily by groups of other quail. During the hunting season just passed, banded birds released in early September, and unbanded native birds were collected from the same groups. Since the banded birds were young when liberated, and since insufficient time had elapsed for the released birds to have nested and raised a brood to the age of the unbanded birds, the taking of both from the same covies must have represented a movement either of native birds to groups of marked birds, or of banded birds to groups of unbanded birds. The latter possibility was thought to be the more probable.

Movement from group to group was even more evident in early fall before the young quail reached that stage of maturity which made it difficult to distinguish between adult and immature birds. On October 5, a covey of seventeen quail was flushed. One of these birds was visibly less mature than were the others. On the same day, another bevy of sixteen was found. A single bird, hardly able to fly was noted among the members of this group. This lone bird was estimated to be about three weeks of age, while the others were nearly full-sized birds. In both of these cases the "straggler" was probably one that had become lost from its own family and had attached itself to the first band of quail with which it came in contact. The fact that the stranger could not keep pace with the rest of its adopted covey in flight from danger was obvious. As a result of

Herein are Recorded Some Very Unusual Observations of Bobwhite and His Habits.

this comparative weakness there is a strong possibility that the newcomer would succumb to predation before the others, particularly if predation occurred while the degree of maturity was so different.

It was concluded that a covey of quail may be made up of individuals of several different hatchings and was not necessarily a single family unit as is popularly presumed.

By mid-April, and possibly sooner, some cock birds had chosen their mates from among the members of their own coveys. From this time onward throughout the summer this pair remained inseparable. On April 20, a covey of quail was located with the aid of a bird dog. Upon flushing, these birds scattered by twos or pairs as nearly as the numbers and sexes of the group allowed. It is interesting to note that those birds which did not leave the scene in pairs did so singly. Upon being further disturbed, the quail fled danger again in pairs; both birds taking to the air at the same moment, flying in the same direction, close to one another, and alighting together. This trait was further observed among the members of another covey on April 26.

About this time of year the coveys disbanded, or "broke up." The birds that had paired off before the break-up set about looking for suitable nesting sites and those males that had not been able to select a mate from the members of their own coveys began looking for one from another source.

Nesting, in most cases, began very soon after the covey break-up. However, at least one case of pre-break-up nesting activity was discovered. On April 26, a covey of six quail was flushed from a weedy field along a stream. Interest was aroused as two of the birds seemed to fly from the same spot. Investigation proved that both were within a foot or less of a newly completed quail nest which contained no eggs. Subsequent observations failed to bring out any evidence that the pair ever visited the site again. However, quail were found quite likely to desert their nests if disturbed before egg laying has commenced, and in some cases, even afterwards.

About the same time of year that the coveys disbanded, the familiar "bob white" call notes of the cock bird were heard. This call was never heard uttered by a member of a covey prior to the break-up. These particular notes from bobwhite's rather wide vocabulary were closely associated with mating and nesting activities. It is thought by some to represent a vocal attempt on the part of the unmated male bird to attract a female. While this is probably true, evidence that the call may be used by mated males was uncovered. On many occasions, the song was heard in the vicinity of occupied nests. In most cases a single cock bird was observed and the call was not given nearer the nest than about forty yards. This was observed so often that it seemed that the calling bird was purposely avoiding the immediate vicinity of the nests. Since no other male was usually found near the nests, it was concluded that the bird was the mate of the nesting hen.



Photo by Bryant Tyrrell

A newly hatched young will run to the clucking of the female as soon as its fluffy down has dried.

On one occasion a male quail was observed calling frequently from the top of a fence post at the edge of a corn field. After several minutes a different note, softer and of almost a pleading nature was heard, coming from a steep bank fifty yards distant from the male. Upon hearing this, the cock immediately flew into a large willow tree where he again uttered the bobwhite call. The bird on the bank answered, low and pleasingly. The male flew to the spot from whence the notes originated, joined the coaxing hen and both disappeared into a thicket of blackberry briars. Subsequent search of this locality proved that there was a quail nest nearby. Possibly the hen, tiring of incubating duties, left the nest for a rest and called to her mate for company during her leisure. Just how she managed to send her mate off when she decided to return to the nest was not discovered.

The "bob white" call was heard throughout the mating and nesting, egg laying, and incubating periods. It was not heard near nest sites after the eggs had hatched and the young had been led from the immediate vicinity. Possibly, since the male assumes an equal share with the female, of the care of the brood of chicks, the added responsibility of a family kept the cock so busy that he had no time to sit on fence posts and whistle.



Photo by the Author

Nest hopelessly exposed by haying operations.

During the mating and nesting season, the male birds watch over their chosen mates very closely. This has been described by many as an act of devotion on the part of the male. Since there usually is a number of unmated cocks calling nearby, trying to entice the hen from her mate, this attention may be activated by lack of confidence on the part of the mated male, either in his own attractiveness or in the steadfastness of his mate. Whatever the activating forces may be, the fact remains that mated cock quail will fight off any intrusion of the pair's privacy by another male.

On July 14, a pair of quail was observed in the shade of a large black walnut tree in early afternoon. A second male, presumably unmated, was seen approaching the pair. The approach went unnoticed until the stranger reached a point about four feet distant from the hen. At this moment, the mated male lowered his head, drooped his wings 'til the tips nearly touched the ground, and uttering a chattering, scolding call, started for the intruder at a rapid pace. The latter beat a hasty retreat for a distance of several feet whereupon the master of the situation rejoined his mate. Again the unmated bird challenged the pair, and again he was driven off. A third challenge resulted in a foot race three times around a

(Continued on page 24)



What is more appropriate than a memorial of living trees?

Photo by Allen Egger

HISTORY IN THE MAKING

By W. Gard. Conklin

TWO important events of more than customary interest to the sportsmen of Pennsylvania are being unfurled at the present time in connection with the administration and management of the State's wildlife resources.

First, the 25th anniversary of the greatest game land purchase program ever initiated by any State in the Union, or anywhere else in the world for that matter. During the past 25 years money supplied by sportsmen has made it possible for the Commission to acquire more than 800,000 acres of State Game Lands, all managed primarily in the interest of wildlife, in 63 of the 67 counties of the State. The program represents an expenditure of almost 3¾ millions of dollars, including the actual cost of land and other necessary acquisition costs as for title and survey activities. The 25th birthday deserves special recognition.

Second, and coincident with the anniversary, is a plan to establish a wildlife arboretum of trees and shrubs indigenous to Pennsylvania within the first tract of State Game Lands acquired, and name it in honor of the Honorable John M. Phillips of Pittsburgh, Pennsylvania's grand old man of conservation.

Mr. Phillips was a member of the Commission from November 21, 1905 to November 17, 1923, and served as president for one year. He is so well known to sportsmen and conservationists throughout the State and Nation, and comparatively little need be said here concerning his record except that he always has been and still is unselfish in his devotion to the cause. He was one of the original and most enthusiastic sponsors of the land purchase program and its constant supporter.

For centuries past it has been customary to erect inscribed stone monuments or plaques as memorials to the heroes of battlefields or other renowned persons. Mr. Phillips, during his many years of service in behalf of wildlife and the sportsmen, also fought many battles, and is therefore entitled to some permanent recognition.

Customs change, and living memorials are more frequently suggested in honor of heroes and other notables than the traditional stone markers or monuments. Is it not more fitting to establish an arboretum of living trees, shrubs and vines in Mr. Phillips' honor than to erect an inscribed monument or plaque?

A suggestion for providing a proper memorial to former Commissioner Phillips was discussed at a meeting of representative sportsmen, with Commissioner Dr. H. E. Kilgus present, at Wilkinsburg last year. It was the consensus of those present that something of a permanent educational value should be developed and dedicated as a mark of appreciation to Mr. Phillips for his outstanding services over a long period of years. The conferees thought this could best be accomplished by creating an arboretum on the first land acquired by the Commission.

Dr. Kilgus made a report to the Commission at its meeting of July 13, 1944, and President Ross L. Leffler was authorized to appoint a committee to formulate plans. He appointed the following:

Commissioner H. E. Kilgus, Brockway, Chairman.

Commissioner Robert Lamberton, Franklin.

Commissioner G. I. Phillips, Alexandria.

He likewise named W. Gard. Conklin, Chief, Division of Lands and C. C. Freeburn, Acting Chief, Division of Game Land Management, as aides.

At the meeting of the Commission held October 5, 1944, Dr. Kilgus reported that all contacted were favorable to the pro-

(Continued on page 28)

WELL--WHAT'S WRONG?

Answers on Page 32

1.

2.

3.

4.

HORSE-HAIR ROPE

5.

JACOB BATES ABBOTT

SIGNS OF SPRING

"If Winter comes, can Spring be far behind?"

By N. R. CASILLO

Photos by the Author



A full stream is as pleasing to behold as a plump animal or a thrifty plant.

IT WAS an unprecedented winter. Ninety-three inches of snow in a single month in some western counties broke all existing records. Old timers and some not so old ceased contending that the climate was getting milder; that a good, old-fashioned winter had not blessed us since that "healthy" one of 1904. Even the blizzard of '88 lapsed into insignificance.

March the month of spring is more often than not fraught with winter's heaviest weather. That year was no exception. In the more remote sections of Butler County loomed six and even eight-foot snowdrifts. Streams had been and were still locked in icy armour. No thaw of any consequence had occurred in ten full weeks.

Local weather prognosticators saw no hope for an early spring. Weren't the insides of squirrel ears found to be heavily furred when inspected during the hunting season? And what about the pointed buds of the beech? That fall had found them with two rather than with the usual single husk of protective covering. Most conclusive though, was the fact that the groundhog was unable to get out of his den even if he had so much as awakened. Unfailing signs, these.

A string of eight or ten silent crows slowly winged over the top of Haw's Hill and disappeared into a grove of maple saplings on its lee side. The intense cold that had sealed Wolf Creek early in the winter was even now stealing up the hillside; poking its frigid fingers searchingly into every nook and cranny. A thin line of sap that the warm noonday sun had started from an ice bruise on an overhanging limb of a soft maple had long since congealed into an icy welt. An owl hooted tremulously and a cottontail moved uneasily from a thin clump of wiry grasses whose stalks rattled dryly in the still air.

After the sun dipped below the thin line of sumac sprouts fringing the hilltop the cold descended in earnest, even the trees seemingly cringing from its searing touch. Long shadows streaking the snow under hemlock coverts were soon engulfed by a palpable darkness. The full moon which had risen a few minutes before the sun had set now became mistress of all she surveyed, her glittering white light accentuating the intense cold. The booming call of a great horned owl intermittently shattered the white silences.

It was some minutes after the horned owl quit his querulous calling before terror left the hearts of all the lesser wildfolk within hearing. Then they began venturing forth from their hiding places to carry on their small but important businesses of living, killing and being killed. That is the inexorable way of Nature.

At the edge of a brilliant patch of moonlight under a feathery spray of hemlock there was a movement that was scarcely discernible. Momentarily, at least, it seemed that it had been but a play of light. In another instant a tiny, pointed, be-whiskered and surprisingly flexible snout came out from under the hemlock bough where it caressed the snow. For a brief moment the pink muzzle turned this way and that testing the air currents.

Satisfied that all was well a short-tailed shrew clumsily but boldly plunged out into the lighted area to begin weaving his perilous way in the new snow. For the diminutive but fierce little creature this was indeed an adventure and his heart was already

beating with the satisfaction of a task well done as he neared his destination.

Just as the little mammal was about to whisk under a snow-covered log a monstrous shadow covered the snow about him and he glared back just in time to meet the yellow, implacable stare of the great horned owl. In a split second the owl's formidable array of scythe-like talons clutched the puny body of its prey. As the talons met, life departed from the grim heart of the shrew without its owner experiencing the slightest twinge of fear, the one emotion that it knew not.

Without so much as missing a single wingbeat the owl winged off on velvety pinions to its nest in a tall hemlock; the minute bit of stringy ill-smelling flesh which it gripped destined for its young.

Except for the swelling buds of some trees the hunting call of the great horned owl as it seeks food for its ever-hungry young is the very first tangible sign of spring, the two and rarely three eggs being laid as early as the middle of February in Western Pennsylvania. Usually by the end of March, regardless of weather and other unseasonal phenomena, the young have hatched and wooded areas of remote sections resound with the hollow calls of the parents. Truly, spring before winter has ended.

A short distance downstream, on the other side of the hemlock wood a low field of considerable area extends from the base of Haw's Hill and thence to the stream which it skirts for a quarter of a mile or so. Except for a few clumps of low bushes and dead bracken together with an occasional tree, the field was covered with an uniform blanket of snow.

Near a copse of young pignut hickories in the farthest corner of the field stands a considerable pile of stones, each painstakingly gleaned from the field and deposited there by an industrious farmer. Now it appeared like a huge, frosted conical cake.

Adjoining chambers in a snug subterranean duplex below the rock pile were occupied by its rightful owner, a groundhog, and a big wide striped boar skunk. On this night a mysterious summons penetrated the cozy retreat and one of the sleepers heeded the call.

Presently, the skunk bestirred himself and after an elaborate and seemingly painful ordeal of stretching began to slowly move upward toward the snow-choked entrance. Pushing and clawing its way through the soft white plug the animal finally emerged and peered at the glittering world about him.

For a long time the skunk stood there at the den entrance apparently waiting for his befogged senses to clear before taking up the business at hand. After a while however, he began moving toward the edge of the ice-encased creek, his shuffling, hesitant gait leaving a trail resembling in pattern if not in size that made by the black bear.

A tracker intent on that wavering trail would have observed that its maker had gone on downstream until he came to a small spring run. In spite of the cold weather and recent snows the little stream was open and its muddy margins sparsely spotted with tender green growths. Clearly, the soft ground showed the tracks leading to a nearby mud flat where a dozen or more skunk cabbages reared their purple veined hoods.

After eating parts of two or three crisp hoods with evident relish (this, however, is not why the plant got its name), the skunk continued along the muddy bank interrupted now by irregular streaks and patches of ice and snow, the animal's muddy feet discoloring its clearcut tracks.

A little farther on the larger tracks of the male mingled with some smaller ones. From this point the double trail careened across a narrow intervale and finally disappeared under an old implement shed at its edge. It was the mating season.

When fresh skunk tracks are seen after a protracted cold spell you can be sure that they presage milder weather. In this case the break came early next morning.

All through the night the wildfolk were unduly active. The delicate traceries of the field mice were to be seen on every hand. The little rodents had emerged from their snow tunnels to revel on the moonlit snows, revelery that was sometimes interrupted by a brief scuffle, a terrified squeak and a rare blood stain or two as a weasel pounced on one of them.

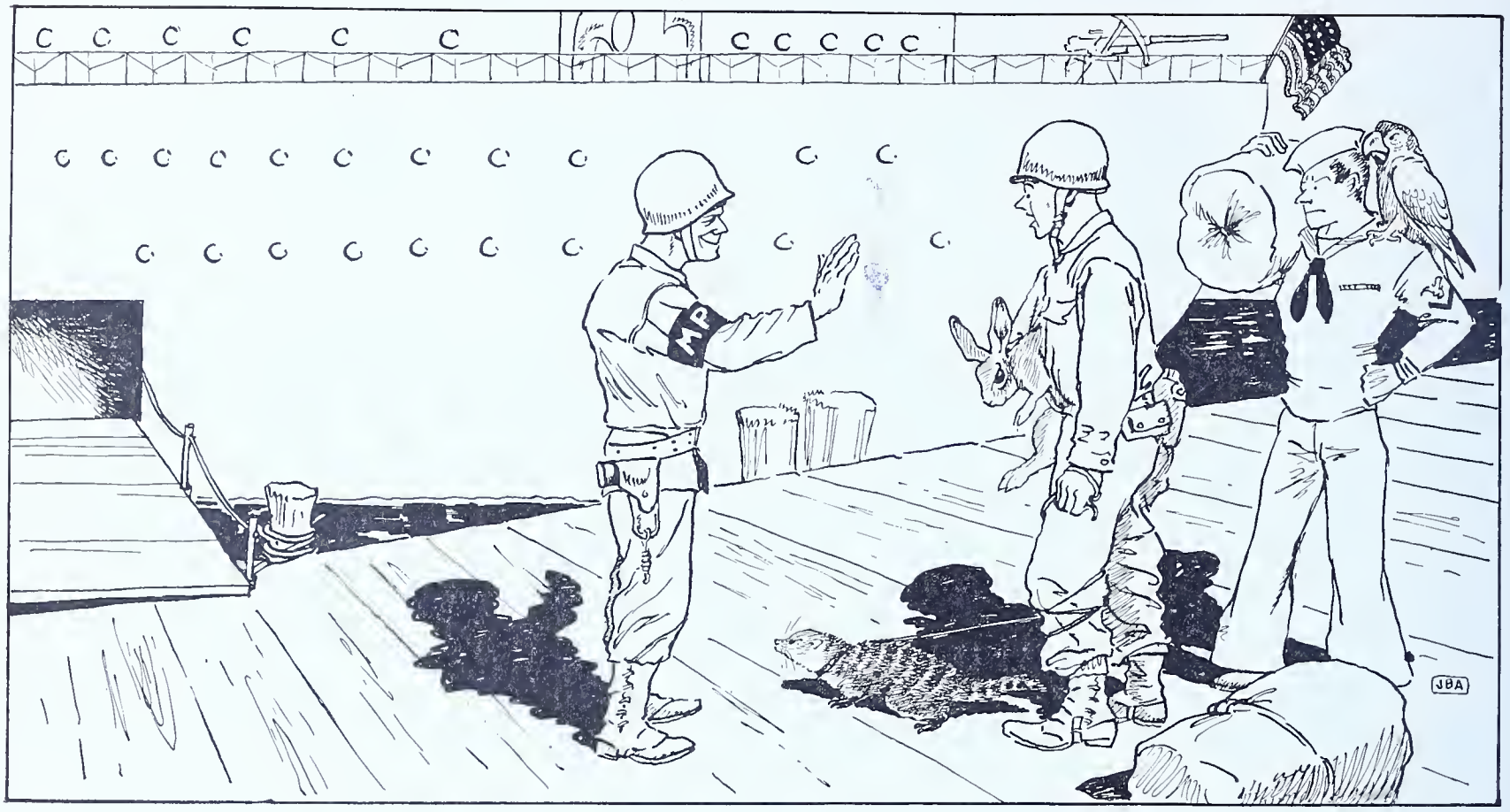
What all of the wild creatures had apparently been expecting arrived an hour before daylight; a light south wind packing an amazing amount of warmth flooded the countryside. As it softly soughed through the hemlocks the weighted boughs were soon relieved of their burdens, the sodden snow sliding off and plopping into the softened blanket below.

By daylight the trees were dripping and scores of newly created rivulets tumbled down every slope. The thick ice on the creek groaned and moaned as the water be-

(Continued on page 23)



"—sniffed excitedly at the hot trail of a cottontail."



Importations of Live Birds and Animals

By TALBOTT DENMEAD*

A SHORT time ago one of George Cook's entertaining cartoons, "The Neighbors," appeared in a number of newspapers with the following explanatory remarks: "He says if he can get her on the plane he will bring 'Myrtle' home with him. Now she might be anything from a wife to a baby gorilla." If the GI was returning with a baby gorilla or any other wild animal as a pet, before it could enter the United States an importation permit would have to be obtained from the Fish and Wildlife Service in Chicago. If it is a wife he is bringing home, this permit may be dispensed with.

Very few people, and still fewer in the military service abroad, know that wild birds and animals cannot enter unless a permit is produced at the port of entry. Many people return to the United States with birds and animals as pets, which they do not care to part with, for which no permit has been obtained, and they cannot bring them in. This causes considerable trouble, embarrassment, and in many cases financial loss. Further confusion arises, for the law (which is an old one) advises the importer to apply to the U. S. Department of Agriculture, Washington, D. C., whereas the permits can only be obtained from the Chicago office of the Fish and Wildlife Service. It is for the purpose of being helpful to these boys and girls that this article is written.

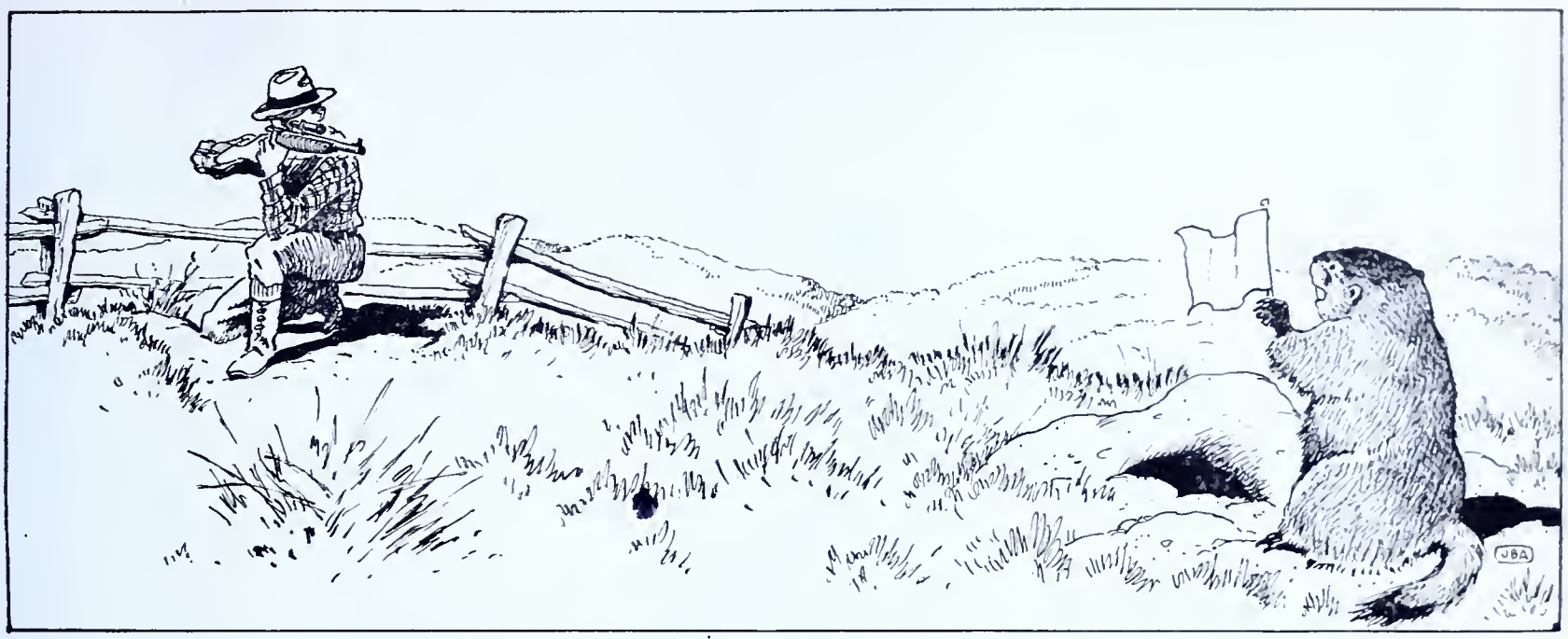
Years and years ago, a member of Congress by the name of John F. Lacey became interested in the conservation of our valuable wildlife, and in 1897 introduced in Congress a Bill for the protection of wild birds and animals which finally became a law in the year 1900, and since that time has been known as the Lacey Act. This was probably the first time the Federal government took official action in the protection of our feathered and furred friends. The Lacey Act regulated the importation of birds and animals and interstate traffic in game. It also enlarged the powers of the Secretary of Agriculture, now Interior, to include the preservation, distribution, introduction and restoration of game and other wild birds, and to aid in the restoration of such birds which had become rare or almost extinct. This could include the propagation of game birds and re-stocking depleted covers, if Congress appropriated the necessary funds.

The section of the Lacey Act in which we are interested at the present moment is number 241 of the Penal Code of 1909. Briefly, it prohibits the importation into the United States of the mongoose, flying fox or fruit bat with a wing spread of 4 or 5 feet, the English starling, the English sparrow, and such other animals and birds as the Secretary may from time to time prescribe for any purpose whatsoever. It also declares that no wild bird or animal shall enter excepting under a special permit. It is a pleasure to record that no wild bird or animal has entered and secured a foothold in this country since the passage of the Act in 1900. The English sparrow (1850) and the English starling (1890) were introduced previously. Undoubtedly, the effective administration of this law by the old U. S. Biological Survey and its successor, the Fish and Wildlife Service, has prevented the introduction of many species that would have become seriously injurious to agriculture or some other valuable interest. The mongoose, for example, was unfortunately introduced into Jamaica for the laudable purpose of destroying snakes, at which it is quite proficient; but it found the birds and their eggs there provided a much easier and less dangerous food.

This subject is of special interest at this time because so many of our boys and girls in our armed service soon will be returning, we hope, to this country, and more and more of them as we draw nearer to Berlin and Tokyo; in fact, millions of them. Many are nature lovers and have acquired pets, to whom they have become attached, and are bringing them back to make American citizens of them. An unpleasant surprise awaits them at their first U. S. port in finding out that their pet cannot enter unless the permit is produced. It is not a very nice state of mind for a fellow to be in—after passing the Statue of Liberty, he loses the pet that has been a friend to him for months in mud, rain and fox holes, all because of what will at first appear to be just another roll of red tape. It will be a disagreeable experience, at least, to have to abandon the pet, however polite and kind the Custom official whose painful duty it is to see that permits are forthcoming. The pet without a permit will be returned from whence it came,

(Continued on page 31)

* Division of Game Management, U. S. Fish and Wildlife Service.



WOODCHUCK DEFENSE

By W. Z. Bradley, Gunsmith

Illustrated by Jacob Bates Abbott

MANY books have been written about the history and habits of the Eastern Woodchuck; also many hunting stories about him have appeared in outdoor magazines by better writers than I.

But someday, somewhere here in the East, a marble statue should be erected in honor of what the woodchuck has done for United States of America. The arms and ammunition companies could pay a liberal sum toward the statue because the 'chuck has sold thousands of rifles, and many more thousands of cartridges for them. The binocular and telescope companies could follow suit, and the one man business of gunsmith, stock specialist, wildcat cartridge designer manufacturer, custom hand-loader, and private maker of barrels also owe "Mr. Chuck's statue" a tidy sum.

As for the nation in general, it should donate plenty for the simple reason that the boy or man of two or more seasons of 'chuck hunting experience is a very good shot, can judge distance over country he has never seen before, understands how to use binoculars to pick out hidden targets, and when handed a U. S. Rifle M 1903 A4 (snipers) with a Lyman Alaskan or Weaver 330C scope, in Redfield Junior mounts, finds jerries or Japs very easy targets. For this ability the man or boy in Service thanks Mr. Chuck, I am sure.

Here are some of the things I have learned in 26 years of groundhog hunting over the eastern part of United States and Canada using most types of rifles, bullets and telescopes.

The popular .22 rim-fire leaves more wounded chucks to die in holes than any other caliber gun because it is used by boys and men who are just learning the art of hunting and who never had training in the use of the .22. In other words they cannot place the .22 calibre, 40 grain bullet in the chuck at a vital part, brain or backbone. The boy who had training by his parent or rifle club, and can call his shots, wounds very few chucks with a good .22 rifle peep-sighted under 50 yards using a 3 or 4 power scope mounted low on a good rifle. He is good for 85 yard clean kills. The reason is the .22 long rifle, high speed cartridge has a muzzle energy of 168 feet pounds but out at 100 yards it has dropped back to 104 feet pounds. If a .22 caliber rifle with scope is sighted in to hit inches high at 40 yards, at 75 yards it will hit point of aim. At 85 yards it will hit one inch low. At 100 yards it will be 3½ inches low, or just enough to cripple a chuck.

So I say fathers should teach their boys how to safely use a .22 caliber rifle and to hit what he aims at. Teach him to estimate distance, as this is a big factor in clean kills. Also advise him to stalk the chuck for a close shot and to make a clean humane kill.

Next take the shotgun in 12, 16 and 20 gauge. (28 and 410 gauge guns should never be used.) Use only coarse shot if you must hunt groundhogs with any of the above, and do not try over 40 yard shots. Many a large chuck I shot with my rifle had been sprayed with shotgun pellets and lived through it.

The best factory cartridge to date for chuck shooting up to 150 yards is the .22 Hornet used in a Winchester Model 70 or Savage Model 23 and 4 to 8 power scope sighted. It will deliver its 45 grain bullet, with muzzle energy to 700 feet pounds, and at 150 yards it has 300 feet pounds on a vital spot of your quarry. The Hornet kills very clean.

Sight the .22 Hornet to strike on point of aim at 25 yards. It will be .85 of an inch high at 50 yards. At 75 and 100 yards it will strike one inch high. At 125 yards it will be six-tenths of an inch high, and at 150 yards one half an inch low. At 175 yards you will fin it almost three inches low. The speed a which the 45 grain .22 Hornet bullet travels plus the thin copper alloy jacket, makes i explode when entering a chuck, thus killin it instantly. There are very few cripples— ask the man who uses a Hornet. Do not as the chuck that was shot by a Hornet—he i dead.

Manufacturers have many hand made .2 caliber HiPower chuck rifles and cartridge such as Arrow, Varminter, Bumblebee, Ackley, Lovell, Thunderbolt, Magnums and wha not. They are long range guns and belong t the men who like to experiment, or the ma of means. More power to these men becaus they are trying to get longer range guns tha kill clean. Someday they will develop a bet ter cartridge than the Hornet.

The 218 Bee, 219 Zipper and .22 Savage HiPower kill very good but lack accuracy The 220 Swift is accurate, kills clean, but i sensitive to wind at long range.

Let us consider the .25 caliber guns used by many experienced whistle pig hunters the 25/20 cartridge with its 60 grain bulle kills clean, but as for accuracy it lacks; 25/3 is somewhat better, followed by the .25 Remington rimless, with an 87 and 100 grain bullet which is accurate up to 250 yards, in a bolt action gun. The 250/3000 Savage does about the same as the .25 Remington. Both kill clean and are good cartridges to reload The .257 Roberts cartridge, designed by N. H Roberts, is so far superior to any other .25 caliber that very few other .25 caliber rifles were purchased to hunt chucks since its introduction.

The .257 Roberts with its 87, 90, 100, 117 and 125 grain bullets guarantees good ac-

(Continued on page 28)

THE ODDS WERE AGAINST HIM



The beaver played a noteworthy part in the development of our country.

By The Editor

Drawings by Earl Poole

WE North Americans of today are wont to smile indulgently when reminded of the beaver and to regard him only as an amusing chance acquaintance, forgetting that he has played a noteworthy part in the development of our continent and that we owe much to this industrious little animal. His one-time importance is enshrined in the heroic traditions of the Hudson's Bay Company and of the North West Company of Canada and in the accounts of Alexander Mackenzie's epic journeys to the Arctic and the Pacific. All these British undertakings had the beaver for their foundation.

But the United States can boast an equal indebtedness to this little rodent. During millenniums prior to our forefathers' landing on these shores the beaver had been damming the streams and so retaining in the impounded waters the silt and humus which would otherwise have been carried to the sea. The fertility of most of our valleys, our farms and even our flower gardens was initiated by the teeth of a small, furry and tireless gnawer who made arable the valleys which the ice age had created, thereby becoming our pioneer agronomist. His successful efforts at soil reclamation antedated the earliest experiments of the Department of Agriculture and the Garden Club of America by probably at least a million years.

This was the condition when, 1609, Samuel de Champlain entered the northern part of present New York State and Henry Hudson sailed his Half Moon into New York Bay, ascended the river that now bears his name, and, on reaching where today is the city of Albany, ascertained that he had missed the way to China. These two men's arrivals had much to do with furs. Champlain was confessedly seeking to enlarge the area of the peltry business in New France—an attempt he promptly thwarted by a few ill-advised shots which, aimed at Iroquois Indians, transmuted the Algonquian confederacy into an active military alliance with the British and so changed the course of civilization in eastern North America. Henry Hudson, though primarily in quest of a route to China, made his employer in Holland a report which, dealing with the commercial possibilities of New Amsterdam's furs, was so enthusiastically phrased that for the next seventeen years peltries formed practically the sole enterprise of the Dutch colonists who settled in our country. The nucleus of all this peltry trade was the beaver.

In this connection it is pleasant to recall that New York State's shield accords a prominent place to the little animal which rendered such valuable services during colonial days.

As the white settlers increased, the beaver and the Indians tended to disappear from the eastern United States, but the beaver's fur maintained its important place in the commerce of the world. Soon after the Revolutionary War, when, about 1790, the China trade commenced to develop, this animal became again nationally prominent. Our ancestors desired tea and other luxuries procurable in the Orient but had little to offer in exchange, so their ships were sent on triangular voyages. Laden with small wares and gewgaws to tempt the Indians of the Pacific Coast, vessels from Atlantic ports sailed around Cape Horn and exchanged their goods of little value for skins of the far West, which were in turn eagerly purchased by the fur-loving Chinese. Thus did the little beaver, slightly aided by the sea-otter, provide not only tea, spices, nankeen and crepes, but also the oriental porcelains, amber, bits of carved ivory and jade, lacquers and whatever else which are now our cherished heirlooms. Our great grandmothers danced in silks indirectly sent to them by the faithful little rodent.

One of these seekers for furs along the Pacific's shores was Captain Robert Gray who, in 1798, discovered a mighty river, entered it in quest of pelts and gave it his ship's name, Columbia.

The American fur trade had already become an important industry when, at the very beginning of the nineteenth century, the Louisiana Purchase was made and President Jefferson commissioned Meriwether Lewis and William Clark to find an overland route across our recently acquired lands to the shores of the Pacific Ocean. These explorers opened a new empire to the American nation, though they failed to chance upon a path which might become commercially practicable across the Rocky Mountains, and so, in 1810, John Jacob Astor of New York, with President Jefferson's approval, sent west another overland party and also freighted the good ship *Tonquin* with "gentlemen partners," Canadian-French trappers and *voyageurs,* arms, supplies, and articles for barter and despatched it forthwith to trade for furs on the western shores. The *Tonquin's* voyage around Cape Horn, the perilous adventures of both its company and the overland group, and also the founding of a fortified settlement at the mouth of the Columbia River in the present state of Oregon have become a part of our cherished literary lore through Washington Irving's previous book entitled *Astoria.*

Because of Captain Gray's discovery and Mr. Astor's settlement the so-called Oregon Country was successfully claimed by our government in the boundary controversy with Great Britain, a controversy which remained a threatening cloud on the political horizon until an agreement was finally achieved in 1846.

Incidentally, Astor's overland searchers for beaver discovered and were the first white men to traverse a route which was later known as the Oregon Trail and along which most of the Argonauts of '49 made their toilsome journey to California.

During the heyday of the fur trade beaver skins passed as money, they having established rating across the continent and as far east as the Atlantic Coast of approximately four dollars for an average raw skin. Following the transfer from hand to hand of the skins themselves other currency such as small stones or bits of metal, each bearing a crude drawing of a beaver and the initials or mark of a well-known trader and representing an actual skin lying in some storehouse, passed freely among traders and Indians.

Gradually the value of the beaver pelts waned until they became merely one of the least modish of furs. Tradition states that they lost their commercial worth when the hatters of Belgium discovered that top hats

could be made from the fur of the Belgian hare, but modern historians have denied the truth of this tradition.

The use of beavers' fur in the making of hats during several hundred years is attested by numerous authors. Chaucer describes one of his characters as dressed "in a mantle and a beaver hat"; and Addison says, "You see a smart rhetorician turning his hat; a deaf man would think he was cheapening a beaver, when he is talking of the fate of a nation."

Whatever its present status, this unassuming little animal may accurately claim that he gave to our forebears luxuries and wealth and that his western cousins gave Oregon, Washington, Idaho and part of Montana to the United States.

Coyotes and beavers have continued to lead their lives and attend to their own affairs less affected by the ways of men than have any others of our wild animals. Indeed, beavers have been wont to attend to their own affairs so enthusiastically that the lives of men have been occasionally somewhat inconveniently affected by the ways of beavers.

We learn from the journals of Lewis and Clark that on August 4, 1805, Lewis, when leading the foremost group of the explorers, was forced to change his course and to follow another branch of the Missouri River's headwaters. Writing directions for those who were to follow he left the paper "on a pole at the forks of the river" and pushed forward. His journal entry of two days later records this simple statement; "at 4 P.M. they arrived at the confluence of the two rivers where I had left the note. This note had unfortunately been placed on a green pole which the beaver had cut and carried off together with the note." And so a little animal quietly attending to his private business forced Captain Clark and his footsore and weary men of a great exploring expedition to make a long detour.

In the early days of steamboat navigation on the Missouri River, long before the era of western railroads, a much heralded steamboat reached the head of navigation just as the waters of the river had commenced their autumnal lessening. The boat had been widely advertised as about to make prompt return downstream to St. Louis but it spent the winter in Montana because, during the scanty crew's shore-leave of thirty-six hours, beaver swung a dam behind the vessel, intricately interlaced the dam into the paddle wheel and so effectively dry-docked the whole affair that clearance could not be accomplished before the river's rapidly receding waters had lost their floatage.

As in many other parts of our country, the beaver was once abundant in different sections of Pennsylvania. But all that was left to tell the wonderful story of these famous animal-engineers thirty or forty years ago were such familiar and suggestive names as Beaver Dam, Beaver Creek, Beaver Meadows and Beaver County, and occasionally someone, while wandering through the wildest portions of the mountains, found the remains of their ancient dwelling place about streams and dams.

There seem to be but few records of any sort concerning the last known colony in the Commonwealth, and these do not agree.

Both American and Pennsylvania History of Mr. Broadtail are Recounted in This Narrative, the Former by Beulah Rollins (Nature Magazine, November 1933), the Latter by the Editor (Field and Stream, 1931).

Mr. Abraham Neveling of Coalport, a well-informed naturalist of former years, once stated that "The last beaver was trapped in Clearfield County in 1837." Another old record tells us that one George K. Boak of Pine Glen claimed the animals were to be found in Centre County in 1867; and still another includes a statement from a Mr. Seth Nelson of Clinton County which goes on to say that the last beaver was killed on Pine Creek in 1884.

The Annual Report of the Game Commission for the year 1902 by Dr. Joseph Kalbfus, the Secretary of the Commission, reads: "We are reliably informed there is still a colony of beavers in the state; they are found in the wildest portion of a wild section. There is no possible way whereby harm can come to any individual or the state through their absolute protection. A sufficient increase in their numbers might result in benefit to the state, and we recommend a law protecting this animal in the Commonwealth."

The movement to protect the beaver was received favorably, for during the Legislature of 1903 a law was passed prohibiting the capture or killing of beavers, violation thereof entailing a penalty of $100.

There are no records at hand which make any reference to the beaver from 1902 to 1915. During that year a committee composed of members of the Wisconsin Legislature visited Pennsylvania to study methods of reforestation. That visit marked a new epoch for old broad-tail and his tribe in Pennsylvania.

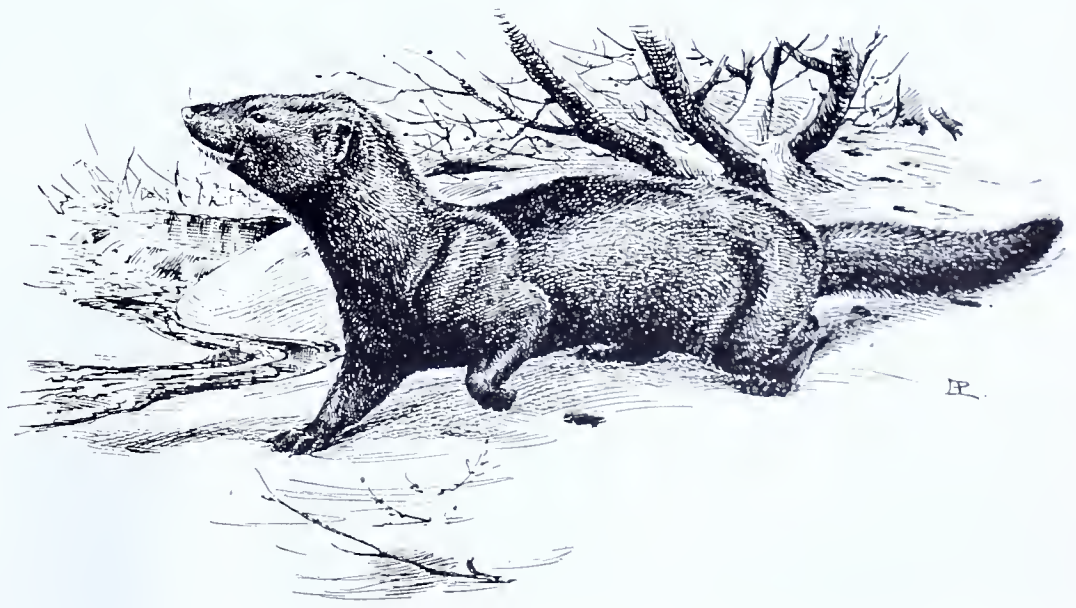
Some of the gentlemen referred to, while looking over certain forest lands in Potter County, pointed out that conditions were ideal for beavers. (At that time Wisconsin was giving beavers protection.) The seed they sowed found fertile soil, but it was not until 1917 that any definite restocking program was undertaken, and then only as an experiment. In the summer of 1917 a pair of beavers was presented the Game Commission by the state of Wisconsin and released in Game Refuge No. 17 near Sizerville, Cameron County, on what is known as East Cowley Run. They at once went to work and built a dam and house, and the following summer raised a family of young. In the spring of 1918 the young beavers moved to other locations on the same stream and built dams, and by the fall of 1919 the whole valley for a distance of nearly a mile was a series of dams, one above the other.

In September, 1919, a pair of these beavers located on Parker Run, about nine miles from the original dam, and the following summer reared young. At about the same time a pair located on Hunts Run, seven or eight miles in the opposite direction. They also built a dam and house, and the following summer raised young. In the spring of 1920 beaver cuttings were noticed on other streams in the locality, many miles distant from the home dams. One dam was found on the headwaters of Bailey Run. Examination of this dam and house revealed, however, that it was established in 1919. In the summer of 1922 a survey showed three well-established dams on Hunts Run, two on Bailey Run, two on Parker Run, and while trapping bears in McKean County during July, 1922, Harry VanCleve, former trapper of the Commission, found a dam with two adults and five young on the left branch of Potato Creek.

By this time all of the streams in southern McKean and most of Cameron Counties were well stocked with beavers—all believed to be the offspring of the original pair from Wisconsin.

During the summer of 1921, former Game Protector C. E. Logue caught three beavers at the original dam in Cowley Run. These were released near Woolrich in Clinton County where they located on Staver Run. There they increased to such an extent that they built and occupied five or six dams on various nearby streams. This is as far

(Continued on page 26)



The otter is the only natural enemy of the beaver.



"From the heading you can see I am in Greenland, situated on an island about a half mile off shore. Things were pretty rough here for several months after we arrived because of the work to be done in preparation for the winter, but now we have settled down and have time for other things.

"Lately I have been doing all the duck hunting that time would permit, and once I didn't have my clothes off for three days. That's not necessary, of course; it was just that I would rather hunt than sleep. The ice formed completely around us about two weeks ago, and that made the hunting possible. Before that time hunting was available to those who had boats but that is one thing that we need badly here. We did inherit a big, metal, and very beat up life boat. It was a means of getting to town when the winds were favorable, but when it got so bad that we had to lash several empty oil drums inside of it to keep it afloat we beached the thing. It wasn't good for hunting anyway because two men were required to row it and at that you couldn't get anywhere. The tides and currents now keep certain areas open around and the duck hunting is really something to talk about. A few short trips in the past week have accounted for about 18 eider ducks. Flocks of over a hundred are not at all uncommon, and almost every bird flies only several feet above the ice or water. The black guillemont is the other abundant bird in the region at the present time, and they are better eating than the eider ducks although smaller. The eiders will weigh four pounds at times being large ducks. The king eider is colored in his blues, greens, salmon, black and white at the present time but the common eider seems to stick to his drab brown and grey. I haven't quite figured out the plumage change in the latter species, but perhaps I have been able to collect only immature males.

"I have permission to collect for the College museum, and have been doing fairly well lately. During the middle of January I collected several purple sandpipers, and was very surprised to find shore birds up here in that month. Lately I have been able to get a little auk, and both the common and black guillemonts. I am really having myself a time and am learning a great deal about birds I had never seen before. When spring comes this will truly be a fertile spot.

"Land mammals are almost entirely absent in this region, and I haven't seen a single one since leaving G, my former base. However, I received a seal net from one of the natives for my birthday and am now trying to catch a seal. They aren't too abundant here and are hunted continuously by the natives, so my hopes aren't too high. When the seals begin to come out on the ice to sun themselves, I should have better luck by hunting them.

"We saw the sun on January 22d for the first time since November first, and each day we seem to have much more daylight.

"I have also made several short trips with our dog team during the past week, and it is really surprising how much country a person can cover in this manner. We aren't too good with the dogs as yet for all they were used for, until the ice formed, was to haul water. A few days ago two of us crossed a field of jammed ice. It was quite a job but good practice for both us and the dogs.

"This will probably be the only letter I send out before spring, and I am not at all sure of getting this one out. Please give my thanks to Mr. Gordon and Leo for their Christmas messages, and my best wishes to all of you. Remember that I'm still very interested in everything that goes on even though I am not able to write as I would like."—Cpl. J. G. Beule 3349506, 8th Weather Sq., APO 859, c/o Postmaster, New York, N. Y.

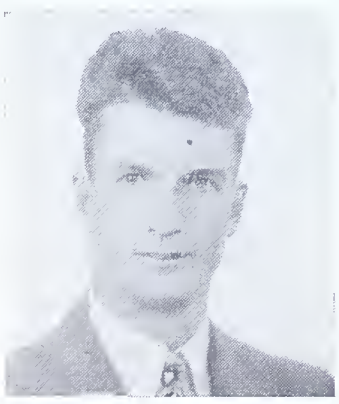
"I was very fortunate in receiving many cards and Christmas packages. After two years absence it is good to know that folks still remember you.

"Today I received the October 1944 issue of GAME NEWS and I enjoyed it very much; it was really a good issue. I was also lucky in receiving several copies of *Field and Stream* in a Christmas package.

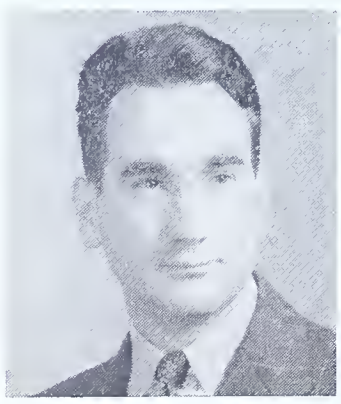
"For the past several weeks some GI's from this base have been enjoying some good deer hunting. Of course it is all done at night with the aid of spotlights rigged up from various salvage parts. The other night several of our boys were out and killed a doe that I judged to weigh around three hundred pounds. It was certainly a massive deer. Our cooks prepared it (steaks) and I must admit that it was fine. The meat seemed finer grained than ordinary Pennsylvania deer and not nearly as dark. Some of the boys took pictures of it.

"There is a great variety of birdlife where I am now and there are several black squirrels, similar to ours back home, that play around our living quarters quite regularly. I would certainly give a lot to have

(Continued on page 32)



R. H. Morningstar



James A. Osman



Clyde W. Decker



George L. Norris

Bushy Tails Like Butternuts

By R. L. WATTS



Photo by Eugene C. Tate

This bushytail says he likes hickory nuts, too.

LAST fall when hunting in the Kettle Creek Region, Clinton County, we were greatly pleased to find that a large grove of butternut trees were making a real contribution to the food supply of the squirrels. One area of three or four acres contained over 100 trees. Some were very large and nearly all were of bearing age. Almost every foot of the leaves and decaying organic matter under the trees was dug up—certain evidence of the work of bushy tails. It wasn't long until I heard their glad "sassy" song or barking, which is always sweet music to nature lovers.

It is generally conceded that the hickory nut is the favorite diet of gray squirrels. But unquestionably they are very fond of black walnuts and butternuts. The kernels of both of these nuts are highly concentrated in calories, the butternut being slightly richer, for it contains 27.9% protein. No wonder the Kettle Creek grays and blacks are so sassy.

Since the almost complete extermination of the American chestnut gray squirrels have had to rely on acorns as their chief source of food. But, as is well known by hunters, the acorn crop is extremely light some years and the squirrels must then seek other kinds of food. In the beech country, beechnuts constitute an important supply, but this is also a very uncertain crop.

There are years when hickories, oaks, and beeches fail to yield any considerable quantity of mast and these are the years when butternuts sometimes play an important role in the nutrition of bushy tails. This statement applies equally well to walnuts, but the butternut is much more common in the Kettle Creek Region and also in other non-limestone sections.

The butternut is by no means a regular annual bearer, but it does produce food some years when other species fail. It blooms early and no doubt this habit is largely responsible for crop failures, for the flowers are often killed by frost. The butternut curculio is also a serious enemy.

The chief motive in writing this short article is to say to woodsmen, "Brothers, spare that butternut tree." It has an important role in the lives of our small furry friends. While walnuts are often "deaf" or devoid of plump kernels, practically every butternut contains a delicious morsel. Furthermore, the butternut is the hardiest of all American nuts, succeeding well up into Canada. And while we are sparing the old trees why not start some seedlings. They are easy to grow from stratified nuts.

THINGS YOU MAY NOT KNOW

One of the strangest mammals in the world is the dormouse, famed in legend and story. He is not a mouse at all, but more closely related to the squirrel family. He is the only mammal that can shed his tail like a lizard in order to make his escape from capture. And he soon grows another tail!

E. Remington and Sons, predecessors of the Remington Arms Company, Inc., were once builders of bridges, large and small. The New York Central bridge, spanning the Hudson at Albany, New York, was built by this firm, now the leading manufacturer of small arms and ammunition.

Bats have the finest of all fur and the greatest number of hairs per square inch of all animals.

The ginkgo tree is the only living plant which exists today in the same form as it did in prehistoric days.

Over a century ago there was a town in Herkimer County, New York, named *Remington*—after the small gun factory established there. Just one hundred years ago the name of that town was changed to *Ilion*, but it is still the site of the now internationally known sporting and military arms factory.

The fact that the porcupine has a particular yen to eat synthetic rubber tires has had wide publicity. But now another "synthetic appetite" comes into view. Stray dogs in the West are said to be eating auto license plates —the plates are made from a soybean base. Hunters who park in secluded spots are taking a lot of chances these days.

Bears are supposed to be slow, lumbering creatures, but recently a bear, running ahead of an automobile, was clocked at the speed of 19 miles an hour until he could find a convenient place to crash into the cover.

Only two of the 3,000 kinds of lizards that inhabit the world are poisonous. These two are the Gila monster and the Mexican bearded lizard.

★ ★ ☆ CURRENT TOPICS ★ ★ ★

UNITED FOR ACTION

Realizing that strength accomplishes where individual effort fails, representatives of various conservation and sportsmen's associations of Pennsylvania joined forces at a meeting on January 30, 1945, in the office of Attorney General James H. Duff at Harrisburg, and agreed to do all in their power to promote the passage of the Brunner Clean Stream Bill and any other beneficial conservation bills.

Organizations present voted to form a permanent conservation committee, with Hon. Grover C. Ladner as Chairman and Mrs. Ellen A. Dietrich as Secretary-Treasurer, the group to be known as the PENNSYLVANIA CONSERVATION COMMITTEE.

Representatives of State Departments interested in the various phases of conservation were also present at the meeting.

The various groups represented brought to the attention of the others in attendance a number of measures which their respective organizations believed should be enacted into laws; and, in accordance with the thought of Attorney General Duff when he proposed such a committee, the State Planning Board was able to secure a general picture of just what legislation the various groups wished. Meanwhile the organizations themselves agreed that by uniting their efforts, they gained strength toward passage of such legislation.

We need not add that the new Committee is not only worthwhile, but necessary. It is only through the cooperation of every sportsman and every conservation-minded citizen that we can accomplish the ends toward which we strive.

BUY WAR BONDS TODAY

IN MEMORIUM



HON. HARRY C. STACKPOLE

It was with deepest regret that we learned of the death of a former member of the Commission, Harry C. Stackpole, St. Mary's businessman, who passed away Saturday, February 3.

An ardent nimrod and angler, deeply concerned about the future of the conservation program in Pennsylvania, he did much to forward this movement during his tenure of office which began June 24, 1927 and terminated December 23, 1931.

His influence and unquenchable enthusiasm will be greatly missed by everyone who was ever associated with him in the field of sports.

News from Other States

According to recent press reports, Maine's 1944 deer kill was 21,661. Although this failed to equal the previous year's splendid record, it was the fourth largest annual bag in the State's history.

Earle Doucette of the Maine development commission reported a 24-point, 316 pound buck as Maine's entry for the largest whitetail deer shot this year on the North American continent. This prize animal fell to the gun of Lester Averill in the vicinity of Carthage.

The Michigan Conservation Commission has asked for an amendment to their game laws to allow an open season on both bucks and does for archers from October 1 to November 14. Then the bowman who had not filled his license would be permitted to buy a second one for the regular deer season and hunt bucks only from November 15 to 30 with either bow, rifle or shotgun as he prefers.

The provision that has forbidden unsuccessful archers to buy a regular deer license has never been quite fair, because the deer-kill with bow and arrow has been so small. In Allegan County last fall, for example, approximately 600 bowmen hunting both does and bucks through the entire month of November took a total of only 13 deer. This situation has discouraged many sportsmen from trying their hand with the long bow prior to November 15.

In 1716 blackbirds were so plentiful in Abington, Mass., that the town voted that "every man 16 years old and upwards shall kill 12 black birds each year or pay two shillings to the town."





Lumbering operations on State Game Lands at Mt. Gretna, Lebanon County. Charles H. Shannon, Land Manager, scales a poplar log. Over a million feet will be removed from the area, mostly for the war effort.

N.R.A. MAKES SPLENDID ANNUAL SHOWING

In the Secretary's Annual Report of the 1944 activities of the National Rifle Association of America, the following highlights impressed us as being worthwhile to pass on to our readers.

"Aside from our work of recruiting specialists for the Armed Services during 1941-42, the Pre-induction Basic Small Arms Firing Schools program has been our greatest tangible contribution to the war effort. This program has received widespread commendation from official Washington, from editorial writers, from our own members and, most important of all, from the men who have taken the course and then gone into the military or naval forces.

"During the three years that this formal school program has been in effect, 1,244 different schools have been certified. Reports have been received covering 2,862 courses conducted by the certified schools. These reports indicated an enrollment of 59,240 student trainees of which 42,868 successfully completed the courses by qualifying as marksmen or better at the end of the school. This number, it will be noted, represents the strength of approximately three American Army Divisions—not a small 'spare time' contribution to the war effort by men who were generally employed full time on other phases of the war program!

The Pre-induction Training Program had a favorable reaction among students, faculty and parents. It also developed a healthy by-product in encouraging senior clubs to organize junior groups. Some senior clubs, with their adult members no longer utilizing the club facilities, turned, at long last, to the youngsters of the community as a means of keeping shooting activities alive.

"A most important by-product of the program has been the development of a corps of experienced group instructors. The standards required to be met for certification as an N.R.A. Instructor were reasonably high. Many men who applied for certificates failed to meet the requirements though some had attended the matches at Camp Perry for years. To encourage men who had the basic qualities desired but lacked experience, an 'Assistant Instructor' rating was established. (These Senior Instructors' ratings are separate from the Junior Instructor ratings which are mentioned under the paragraph dealing with Junior activities.) During the approximate 30 months the instructor certification plan has been in effect, certificates have been issued to: 647 Rifle Instructors; 131 Pistol Instructors; 395 Assistant Rifle Instructors; 39 Assistant Pistol Instructors.

"As a result of the improved program and the stimulant provided by the war, 178 new junior clubs were chartered during the year aside from summer camps. There was also renewed rifle shooting activity in the summer camps as ammunition became more readily available.

"The Junior Program holds the key to the future of shooting in America. We must continue to improve the program and to improve our contacts in those groups whose support is essential to the expansion of the program."



CHARLES C. BRENNECKE

Another oldtimer shed his harness on February 28 after serving faithfully and diligently for 21 years. Game Protector Charles C. Brennecke, Altoona, began his career with the Commission on June 1, 1924 as the Game Protector of Blair County and has remained in that position ever since.

We dislike losing the services of such an outstanding officer, and are happy that we are going to do so only officially. He will always cherish a love of the great outdoors and remain an unofficial protector of nature's bountiful treasures. Mr. Brennecke was tremendously interested in promoting conservation education in the public schools. The best wishes of the entire organization go with him.

FOREST SERVICE CELEBRATES FORTIETH ANNIVERSARY

President Roosevelt, in a 300 word congratulatory letter addressed (February 1, 1945) to the Chief of the Forest Service, U. S. Department of Agriculture, on the occasion of the fortieth anniversary of the establishment of the Forest Service, said the economic future of America cannot be wholly safe until the future of the nation's forests are assured.

In commending the Forest Service, Mr. Roosevelt said, "You have a right to be proud—all of you, every member of the Service—for the Service has done great things . . . It has made forestry known to America, it has turned many enemies of forestry into staunch friends, it has won the confidence and cooperation of the people, and it has led the way in making American forestry an autstanding achievement.

Gifford Pinchot, former Governor of Pennsylvania, reviewed his early experiences as first head of the new Division of Forestry set up in Agriculture in 1898 and later as first Chief of the Forest Service beginning in 1905. He contrasted the 1898 budget figure of $28,000 for his division and its 11 employes with the present appropriation of $59,000,000.

"When this war is over your responsibilities will increase," declared Claude Wickard, Secretary of Agriculture. "First, there is the big task of restoration, long neglected before the war and now increased by the devastating cutting for the war. Then there is the new field just unfolding—the chemistry of forestry. I refer to the new utilization of forestry products . . . In the future we must think of the growing of trees more in terms of growing a crop that not only must give us a sustained yield but one which conserves our soils and water and enriches our lives."



Lena's litter whelped June 19, 1944—twenty-three in all and a record breaker. Lena is owned by Lieut. Commander W. Newbold Ely, Dogs for Defense, and well known Master of Foxhounds.



Prof. P. F. English, State College, proudly displays a nice 6-point, 155 pounder killed at 8:00 A. M. December 1st, last year in the Barrens of Centre County.

HOW FAST DO THEY FLY?

The question of how fast game birds fly has always been a subject for debate . . . many times heated debate . . . wherever sportsmen gather.

Much research by various agencies and authorities has not yet brought to light the exact speed, and according to a Remington Arms Company, Inc., authority, never will.

"The speed of an upland game bird in flight," he said, "depends on a number of conditions. When he is unmolested his flight is slower than when he is frightened by the hunter's approach. The same applies to migratory water fowl. On their long journey from one part of the continent to another they conserve energy by adopting a somewhat 'leisurely' speed. If frightened, however, that speed is stepped-up immediately, but even when frightened, all birds of any particular species do not fly at the same rate of speed under the same conditions.

"It will not be too surprising to experienced sportsmen to learn that, *when unmolested,* the dove flies slower than many other game birds. But to others, not so experienced, he appears to be a grey speed-ball.

"Probably the fastest game bird we have," he continued, "is the canvasback duck, which, according to researchers' records is faster than the blue-wing teal by a narrow margin.

"Here are some figures on the flight speed of unmolested game birds. These are computed as an average from the findings of a number of researchers. I would not say that they are exactly correct, but they constitute the best information we have to date on the subject: dove and plover, 34 m.p.h.; curlew, 38 m.p.h.; quail, prairie chicken, ruffed grouse, jack-snipe, mallard, black duck, spoonbill, pintail, wood duck, widgeon and gadwall, 41 m.p.h.; swans, 45 m.p.h.; Canada geese and brant, 48 m.p.h.; green-wing teal, 79 m.p.h.; redhead, 82 m.p.h.; blue-wing teal, 89 m.p.h.; canvasback, 94 m.p.h.

HUNTERS YOU KNEW

NEMATODE NICK

Nick Hanahan
Thought he was a he-man
Because he could stomach raw meat;
He urged us to try it,
This Eskimo diet,
His sandwich dripped blood at his feet.

We hunted with awe
As he ate pork chops raw,
And scoffed at the notion of germs;
It was too late when Doc
Found him cold as a rock,
Infested with trichina worms!

CARSTEN AHRENS.



BUY WAR BONDS AND KEEP THEM!

TONY GOES A FISHING

My name she's a Tony.
My friends a name Joe.
He's a laka to fish,
So to catch 'em we go.
We get up a early,
Bout five by da clock,
We ride by da car,
Then some more a we walk.
We go a long time,
Then come to da stream.
She's a beaut I'm a tell you,
Jost lik in a dream.
Da water shes fall,
Down over da stone,
She's a place where da trout,
She's a mak a da home.
Now dis fello Joe,
He's a smart a one man;
But me, I'm a tell you,
I'm no fisherman.
I'm watch a my friend.
He's bait a da hook;
He's a throw her in,
Way out in da brook.
I sneek up a close.
I watch through da leaves.
My friend's get a bite,
Jost then I a sneeze.
He's turn all around.
At me he's a look;
And what he's a say;
She's a no fit for da book.
I say O. K. Joe,
I'm a so sorry please.
The leaves tickle my nose,
She's a mak a me sneeze.
He say O. K. Tony,
I CAUGHT 'IM AGAIN,
But, he slip on da rock,
And he's a fall a right in.
The water she's splash,
The trout she's a go.
I look a right down,
At my poor a friend Joe.
He sit in da water,
He's pole, she's a broke.
This fishing for trouts
She's a one a big joke.
He's get all wet,
And walks a six miles.
He's no catch a one yet,
But still he's a smile.
This fishing for trouts,
She's all right for my friend;
But to me she's a troubles,
Piled end, on the end.

HARRY C. KUHNS.

Catamingo!

The other day Harry A. McGraw wrote to us asking the meaning and origination of the word "catamingo." After consulting Colonel Henry W. Shoemaker we learned that "catamingo" is an Indian word meaning strong and vigorous cat. Many old trappers in the northern part of the State applied the term either to weasels, minks, martens or wolverines, depending upon their locale. Colonel Shoemaker also expressed the thought that the word may be a generie term for the lesser carnivore.

Has anyone ever heard this word used by old hunters, trappers, or other outdoor men? Or maybe some of our readers know about other old trapping derivations.

Let us hear about them!

The Men Who Superintend The State Game Farms



Vernon T. Warfel



Kenneth N. Brennaman



Earl Greenwood



Leon P. Keiser

VERNON T. WARFEL

Mr. Warfel "grew up" with the Commission's propagating program, having helped in the first attempt to raise pheasants on the game refuges in 1928. Four years later he was appointed Superintendent of the Jordan Farm, the first propagating plant established by the Commission, and supervised the change-over from the old brooding hen method to the mechanical system.

In 1939 he was transferred to the Fisher State Game Farm and placed in charge of bobwhite quail propagation. Since then he has helped supervise much of the experimental research work on breeding, nutrition, etc., including the experiments mentioned in the article "Rations for Bobwhite" which appeared in the February issue of the NEWS.

Prior to his employment with the Commission, Mr. Warfel was employed for twelve years in the railway express service in various capacities including the position of Terminal Foreman at Scranton and Binghamton, N. Y.

He is a Past Commander of the American Legion and served in the General Service Infantry at Fort Slocum, N. Y. in 1918. His son is now serving in the Army Air Corps in the Pacific.

KENNETH N. BRENNEMAN

Mr. Brenneman began his services as a laborer on the Jordan Farm in 1929 but like Mr. Warfel he took much interest in the work and was appointed Assistant Superintendent in 1937 and Superintendent in 1939 when Mr. Warfel was transferred to the Fisher Farm.

His father was a preacher but when his mother died he went to live on his uncle's dairy and potato farm. He was educated at the local country school and later at Volant High School. His uncle's interest in Farm Bureau work gave him many opportunities to increase his knowledge along poultry, dairy and agricultural lines, which subsequently influenced him to enter the Game Commission's employ.

Mr. Brenneman has been a hunter and fisherman ever since he has been able to tote a gun or carry a rod and never misses an opportunity to pursue these outdoor recreations. Mr. Brenneman resigned as of March 20 to enter the farm implement business and subsequently to undertake poultry raising.

EARL GREENWOOD

Mr. Greenwood has been Superintendent of the Loyalsock Game Farm since 1933, having gained considerable experience for several years prior to that in carrying on the day-old pheasant chick program for the Lycoming County Sportsmen's Association which he helped organize and administer, and which was one of the first groups to cooperate with the Commonwealth in that new undertaking. He also helped organize the Williamsport Chapter of the Izaak Walton League.

Mr. Greenwood was born in Warren, Ohio, but moved to Williamsport in 1900. He attended public and high school in that city and for fifteen years was the proprietor of a retail coal business.

He has hunted and fished since boyhood and had a cabin along the Loyalsock Creek since 1912 with the late J. Aug. Beck, well-known sportsman and taxidermist and former member of the Game Commission.

LEON P. KEISER

Mr. Keiser started his career with the Commission as the District Game Protector of Juniata County in 1932. Two years later he was appointed Superintendent of the State Wild Turkey Farm. In 1938 he was placed in charge of field operations of the turkey program, but was moved back to the Farm when the two positions were combined.

Before he affiliated with the Commonwealth, Mr. Keiser taught school and coached athletics at Tyrone High School and operated a baby chick hatchery in Mifflintown.

That he knows his turkeys should not be difficult to understand because he was born and grew up in Juniata County. He attended Mifflintown High School and graduated from Gettysburg College.

His hobbies are trout fishing and bird hunting.



Photo by Dan E. Mertz

Five nice ones, left to right: Otto Stager, Homer Spangler, Floyd Miller, Roy Ditzler and Slats Miller.

Birds have an instinct which prompts them in all their actions. As in the case of the Nuthatch, that busy little gleaner of larvae that is hidden in the deep crevices of the hardwood trees. The Nuthatch does not live only on larvae. It is also a seed eater. Since the Nuthatch cannot eat the heart out of the hard corn grains, its wild instinct tells it to tuck the corn into the cracks of the tree bark. There the dampness and water of melting snows soften the corn center until it is possible for the bird to eat it.

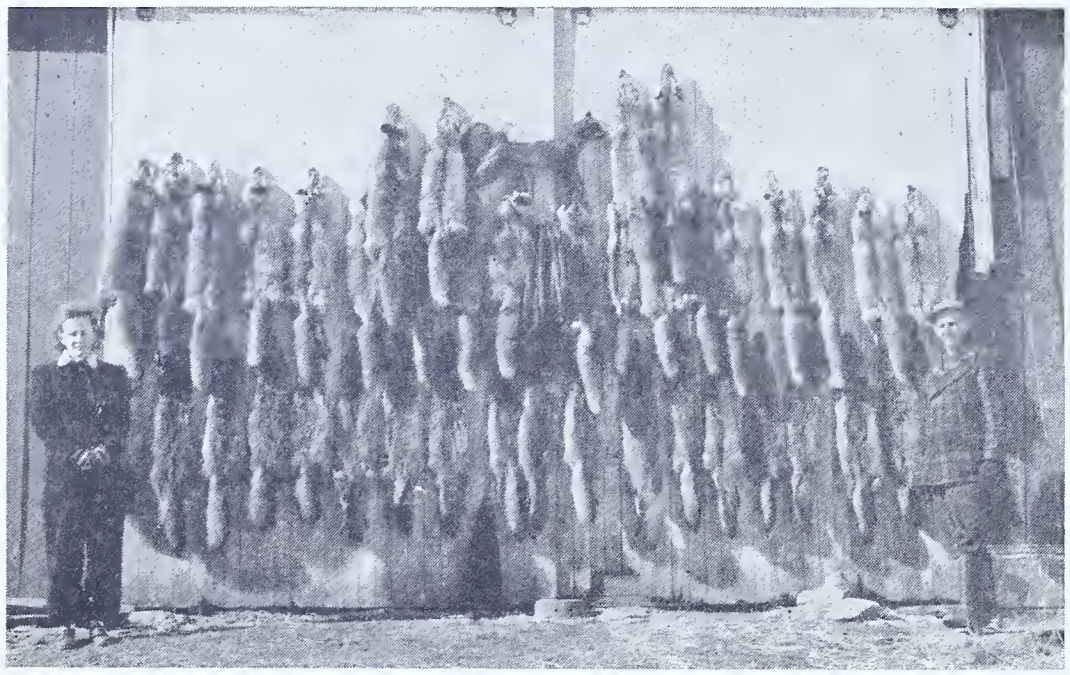


Photo by F. L. Empet

Mr. and Mrs. Cecil Rose, New Milford, with some of the 270 foxes they bagged last winter.

They're Canning Cartridges Now!

Remington Arms Company Uses New Container for Military Ammunition

They call them "meat cans." But, according to Remington Arms Company, Bridgeport, Connecticut, they contain lethal cases of acute indigestion for the Jap and Hun. For they're "canning" military cartridges now.

The new improvement in packaging was born of the many varied conditions, both climatic and tactical, which our fighting forces are facing in this global war. It derived its nickname "meat can," from the fact that clamped on the side is a key with which the container is opened.

The steaming humid heat of jungle fighting, the searing winds of the deserts, the soup-thick fogs and mists of the Aleutians, the blustering blizzards of the Arctic wastes and the deadly cold of the stratosphere—all demand that American-made ammunition be packaged so efficiently that it will arrive at its destination in perfect condition, and then function properly when the gunner calls upon it.

In addition there is another requirement it must meet. In the fast and furious assaults necessary in present beachhead warfare, much ammunition is dumped overboard in the surf to be recovered later. Unless protected by proper packaging, such necessarily rough handling may subject the ammunition to possible salt water corrosion. The new can, developed by the U. S. Ordnance Department, working in conjunction with Remington Arms Company, the Chrysler Corporation and the American Can Company, is designed to take care of all this.

It is a hermetically sealed tin can of heavy sheeting, opened by a key in the same manner as a sardine can. A handle for carrying is also attached. The capacity of the cans now being loaded at Remington-owned-or-operated plants is 800 carbine cartridges, 240 cartridges of .30 caliber, or 120 "FIGHTING FIFTIES." Loaded the container weighs approximately 25 pounds.

After loading and sealing with special sealing machines, the cans are painted olive drab in color. The cans have small knobs on their lids, which identify their contents. Any soldier, in darkness, can immediately tell, by feeling these knobs, if the cartridges within the can will fit his gun.

Conditions of this war have made it necessary for manufacturers to produce ammunition meeting higher and more rigid standards than ever before. Packing standards have been correspondingly raised.

For years American industry has been packaging many thousands of widely varied items in tin cans, but, according to a Remington spokesman, it required the many emergencies which arise in a global war to bring about the "canning" of military cartridges.

Pierce Leiby, Lewistown Valley, didn't have to go far from home for his deer kill. Leiby and his hired man, Nelson Brobst, were milking cows when Brobst looked out into the field near the barn and saw two bucks grazing.

They quickly got their guns and went outside. Leiby's shot brought down a buck, but Brobst missed.

WHY GUNS DON'T BLOW UP

In these days of global warfare, when everyone is conscious of the use of guns, cartridges, bombs and other explosives, the Remington Arms Company, Inc., is more frequently than ever asked the question. "Why is it that the powder charge in a cartridge doesn't blow up the chamber of a gun, like dynamite or black blasting powder would do in the bore hole of a quarry or mine?"

The answer, according to a Remington Arms Company authority, lies in the fact that different kinds of powder are used for different purposes.

"For instance," he said, "the distinction between an *explosive* and a *propellent* powder is that an explosive generates its energy in an extremely rapid or violent manner and is intended to disrupt, scatter or burst the container. This is generally known as a high explosive.

"That type of explosion is generally called a *detonation* in contrast to the slow or progressive *combustion* of propellent powders. The bullet or shot charge at the front end of the propellent powder charge is not absolutely confined and is permitted to move which, of course, relieves the pressure immediately. Propellent powders, in the main, are made from what are technically known as 'slow and progressive burning' materials. This type of powder, with its gases finding an outlet through the bore of the gun, continues to *push* the bullet or shot charge through the barrel as it burns, thus relieving the generated pressure on the chamber and sending the missile on its way at top speed.

"The term 'slow' is used in a comparative sense. For instance it requires approximately one 1/1000th of a second for a .30 caliber cartridge to reach the muzzle of the rifle after the cartridge has been fired, which is, of course, very fast time. But the energy of detonation powder would have been exhausted several thousand times faster.

"Of course," he continued, "these new powders generate a lot of pressure and should not be used in the old Damascus barrels. But unless the barrels of modern guns are obstructed by some foreign substance, such as mud, snow, etc., there is little danger of the present day powder blowing up the chamber of a gun."



Photo by L. N. Donaldson

D. W. Whitton, Clarendon, with 42 foxes taken so far this season.

NON-CORROSIVE PRIMING BOON TO RIFLEMEN

Ten million .22 caliber rifles . . . the approximate number manufactured since 1926 . . . owe their continued existence to non-corrosive priming, introduced in this country by the Remington Arms Company, 19 years ago. Before this important development, it was necessary to clean a gun carefully after each time it was used. Failure to do this resulted in bore corrosion and rust.

Predestined to play an important military role, non-corrosive priming was thoroughly tested by farmers and sportsmen for years before the present war. Pioneered as a peacetime development, it was specified when Army Ordnance officials requested Remington to adapt a commercial non-corrosive priming mixture to the military cartridge for the new caliber .30 carbine rifle. This rifle is widely used in jungle and guerilla fighting, where the soldier may not always have time or facilities to clean his gun.

Hundreds of millions .22 caliber cartridges with non-corrosive priming have also been used in gunnery training by Army and Navy personnel. Such ammunition has been used in .22 caliber Springfield rifles as well as machine gun trainers chambered for .22 ammunition. The resultant saving in precious military cartridges has been vitally important to the supply problem. In addition, non-corrosive training ammunition has saved many hours of time that might otherwise have been necessary to clean weapons.

Before the development of non-corrosive priming, it was necessary to clean the barrel of a .22 rifle with hot water and oil after any shooting had been done. The old type mixture left in the barrel a chemical salt deposit which attracted moisture, thus resulting in corrosion of the lands and grooves with a loss in accuracy and general efficiency. As few as 20 or 30 shots, followed by a brief storage, was sufficient to start bore corrosion if cleaning was not done promptly. This meant that a farmer or hunter who used his .22 only once in a while . . . to shoot a woodchuck or a crow . . . had to clean the barrel every time before he put his gun away. Failure to do this meant that the lands and grooves would become pitted through rusting. Thus, the average lifetime of a gun barrel has been substantially increased even with indifferent care.

Rim fire ammunition, primed with non-corrosive mixture, is practically immune from any loss in sensitivity due to prolonged storage under normal conditions. This is demonstrated by the confidence shooters have after years of actual field use with "Kleanbore" priming . . . the name selected back in 1926 as a result of a nationwide contest Remington conducted to find an appropriate designation for the new product.

Such a favorable response resulted that it was necessary to develop a complete line of non-corrosive primers for center fire metallic cartridges and shot shells. These appeared in 1928 and 1930 and have been accepted as the standard by all users of these types of ammunition.

During the time that Remington was testing the effectiveness of its non-corrosive priming for sporting ammunition, somewhat more than 500,000 rounds were fired through the same .22 caliber barrel without its ever being cleaned. Although this shooting covered a period of about ten years, the accuracy of the gun did not suffer in any way and no sign of rust was visible in the bore.

That much shooting, 500,000 rounds, is probably the equivalent of several lifetimes of normal shooting for an average farmer or hunter. If your .22 is still good enough to pass along to your children and grandchildren, non-corrosive priming probably has a lot to do with its condition.



Photo by Alton D. Shaw

This splendid trophy was bagged during the 1942 season in Huntingdon County by H. G. Musser of Altoona. Mr. Musser was 73 years old at the time.

BALLAD OF THE 'COON HUNT

The nimrods planned at a husking bee
To run the hounds on their first day free,
To work them out and test their mettle,
And put them into keen hunting fettle.
And on a night when a hunter's moon
Burns red in the east, and dusk falls soon;
When mists dim out the pole star's light,
And wild geese start their southern flight,
The dogs are alert and groomed for trial
That will take them many a winding mile;
They raise their muzzles and sniff the breeze,
Then bay at the moon through the locust trees.
They wait for Scout, on the quarry track,
To post the call to the restless pack,
And when he bugles clear and shrill
He has found scent in the pasture hill.
They strain at the leash for a moment, tense,
Then a forward surge, and over a fence
They bound, to follow the leader's trail,
To sweep the meadow's frost-rimmed swale,
And down in a stubble's fodder heap
A sly little raccoon lies fast asleep,
While the woods re-echo the din of the chase—
The yearling's tenor and the veteran's bass.

—JOSEPHINE BRUCE ALEXANDER.

In some sections where grouse range they are called birch grouse because of their fondness for birch buds.



Photo by H. C. Smalley

An 11-inch pike taken from a 25-inch watersnake in Sideling Hill Creek during the summer of 1944.

LOST OR STOLEN: A cross between a beagle and fox hound named "Jack", 16 inches high with black body, brown legs, ears and most of head, mouth and feet gray, chest brown and gray, stomach mostly brown with some black and gray. Small naval rupture about the size of a small shellbark. Affectionate disposition. Disappeared from premises of owner December 29, 1944. Reward—George W. Leonard, Conestoga Terrace, Lancaster.

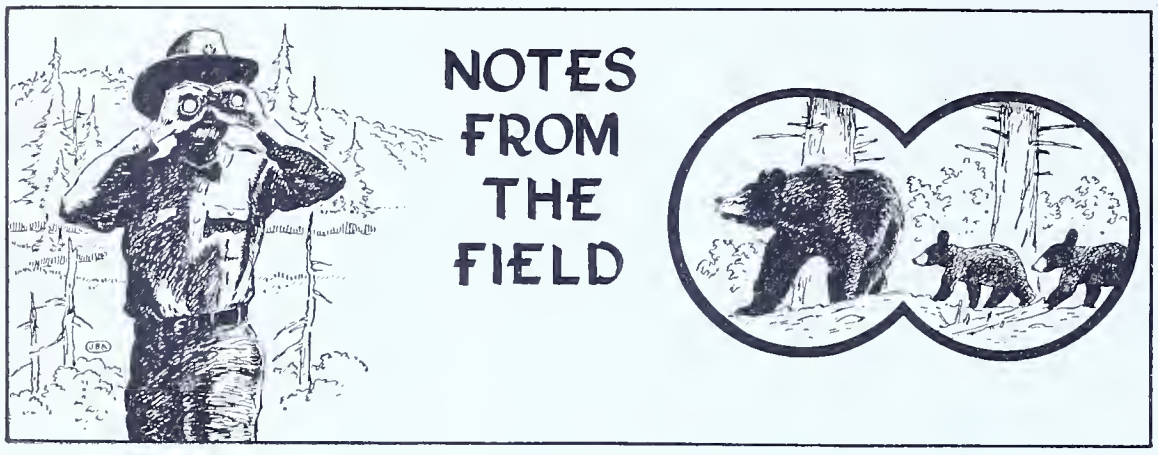
Hats off to the Junior Sportsmen's Club of the Bell Avenue Junior High School, Yeadon, Delaware County, and the Boy Scout Troops of that section, who box-trapped 92 rabbits in 23 days from the vicinity of Victory gardens.

Robert C. Yake, Principal of the High School, and Game Protector George Freas have been pushing the program along with L. C. Kibler, Chairman of Victory gardens, who wants the rabbits removed before Spring. Mr. Yake has been appointed a subagent of the Commission to trap rabbits in the Borough of Yeadon.

The African giraffe-like wild okapi is included in the list of interesting animals known as "living fossils" because it is more nearly related to extinct forms than to the modern giraffe.



Mike Diberdine, left and Donald Shirk, Quarryville, with a day's bag taken in Lancaster County last season. Both are members of the Southern Lancaster County Farmer's and Sportsmen's Association.



"The heavy snowfall and high winds during the month created almost unbelievable conditions in my District. A fairly efficient feeding program is under way, however, and to date our wildlife has not suffered unduly. Ironically, the farmer-sportsman is by far the most interested in the game-feeding program. When I recently advised the farmer-sportsman group, Camp 271 United Sportsmen of Pennsylvania, that the Commission was conducting a feeding program and that I was temporarily out of feed, these men voluntarily solicited among themselves 24 bushels of cob corn, 2 bushels of buckwheat, 2 bushels of wheat and 200 pounds of mixed scratch grains to be placed at my disposal, and in addition to this they pledged to feed game in their respective farm lands. This from a group of whom 90% are farmers, whose lands are open to public hunting seemed an unusual gesture of sportsmanship and cooperation to me."—Acting Game Protector William I. Beisher, Huntington Mills.

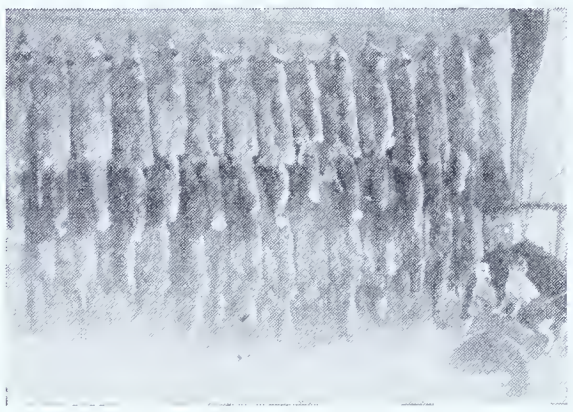
"On January 30 I received a call from Confluence that dogs had chased thirteen deer into the Youghiogheny River near the old town of Somerfield. Upon arriving there I found that the deer had been chased onto the ice which was not strong enough to support them and they were all in the water. Several had weakened and died. With the aid of some local men and a boat we managed to rescue six of them from the river alive, but two died during the night.

"One of the guilty dogs was killed and an extensive hunt is being made for the remainder of the culprits."—Game Protector Millard M. Crooks, Somerset. .

"On January 13th Charles Johnson and Wayne Weibley, both of Ickesburg, were hunting foxes in Liberty Valley, Perry County, when they noticed a fox track of the previous night. Trailing this fox for about a distance of 1½ miles without the use of dogs, Mr. Weibley came to a hemlock tree where the trail stopped. Mr. Fox was perched in the upper branches of the tree, about 20 feet from the ground! Of course Mr. Weibley immediately shot the animal. At no time was this fox hard pressed by chasing dogs, but evidently had been in the tree a good while.

"Incidently, Mr. Weibley had previously killed 23 gray foxes and several reds."—Game Protector Joseph S. Checklinski, Newport.

"While feeding wild turkeys on Bobby's Run in Shippen Township on the morning of January 31, I found the place where a red fox had caught a wild turkey. The turkey had been roosting about four feet from the ground in a hemlock tree. By the feathers in the tree and the marks on the snow, you could see where the fox had jumped up and caught the bird."—Game Protector Max N. Ostrum, Emporium.



Wayne Weibley, Ickesburg, with foxes taken with traps and terriers in Perry County from November 1 to December 30, last season.

A new organization of sportsmen in Altoona, designated the Altoona Wildlife Conservation Association, was established at a well attended meeting held in that city recently.

Dr. J. Frank Buzzard was named as president, with Ike Chaplin as vice president, Attorney Leo C. Mullen is the secretary-treasurer. All were named temporary officers at a previous meeting.

The new president was empowered to select a committee of seven members to form a Board of Directors.

The organization will cooperate with sportsmen's groups in the district, and will also launch an extensive rebuilding program seeking to better wildlife conditions.

The Smokey Run Sportsman's Association has been doing a splendid job feeding wild turkeys and other small game in southern Blair County. Huge amounts of corn and large quantities of apples and greens have been bought and carried by large convoys of men to the feeding grounds. Feeders have been constructed where necessary and have been kept filled for the past few weeks.

The members report seeing small herds of deer which seem to be in a satisfactory condition.

"Two dogs brought human and wildlife drama to the Youghiogheny River region a half mile above what used to be Somerfield on January 30 when they drove 13 hungry and bewildered deer into the ice-laden waters of the stream.

"Under the direction of myself and Game Protector M. M. Crooks, a score of sportsmen and others from the district labored for hours and finally succeeded in rescuing five of the fleet-footed animals, including an eight-point buck, alive. Four others were drowned and four were unaccounted for.

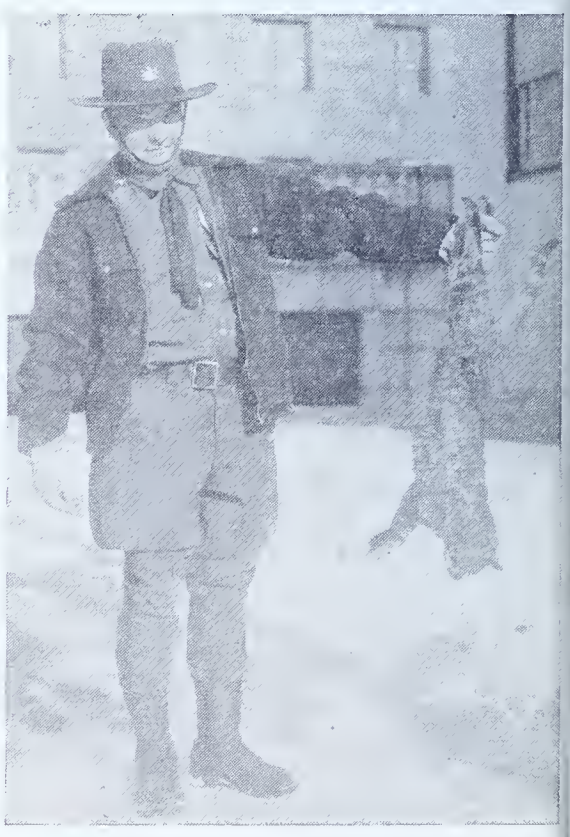
"Because of the Oakland dam, which causes the Yough waters to rise and fall regularly, much of the ice was of slushy nature. A few of the deer managed to get on firm ice, but others went through.

"We worked from 12 o'clock until 6 o'clock in freezing waters and near-zero blasts to help the animals to safety, and even while the rescue work was being done, dogs chased two more deer down from the mountain to the river, and onto solid ice one half mile above the scene of action.

"The next day Game Protector Crooks and myself went back to the scene and with the aid of a few sportsmen managed to kill one of the deer-chasing dogs.

"I just learned that a man by the name of Magee residing near Elliottsville, Fayette County, killed a four-point deer in that vicinity this season, and when he went to dress it out, discovered that it was a doe! Just another freak of nature.

"While checking rabbit traps, I came upon one which had a rabbit in one end and a nice big tomcat in the other end. The rabbit was unharmed due to the fact that the cat was unable to turn around in the trap. I removed the rabbit, and you can guess what happened to Mr. Cat."—Game Protector Lester E. Sheaffer, Uniontown.



Game Protector Mark Motter, Dauphin County, with unusually large half wild house cat caught in the act of killing game.

Book Reviews

Birds of the Southwest Pacific, by Ernst Mayr; Macmillian 1945 ($3.75)—Dr. Mayr, curator of the Whitney-Rothschild collection of birds at the American Museum of Natural History, is the acknowledged authority on birds of the Southwest Pacific area, where vermin have been so methodically and thoroughly exterminated these last three years by United States marines, doughboys and naval task forces. Dr. Mayr spent two and a half years on New Guinea and the Solomons studying birds and, in all, seventeen years of his life have been given over to ornithological research of these and neighboring parts of the Pacific. The above book is one of the results and must take first place as the authority for bird identification in that vast region.

Three colored plates by Frances L. Jacques, totaling over 30 individuals, show all the more prominent bird families of the Southwest Pacific. There are a few line drawings as well. It is a little unfortunate that the names of the species could not be placed under each colored plate. However, the birds are numbered and are identified on an indicated page.

With so many Americans now in this area, not a few of whom are keenly interested in wildlife, this book answers a widespread demand for knowledge and identification.

It would be a fine present to send that son of yours on New Guinea, Guam or Saipan, who wants to know more about that strange-looking bird that flops along the beach like an over-loaded bomber trying to take off or that flash of brilliant color that he saw in the steaming jungle.

The Fox in New York, by Clayton B. Seagears, New York Conservation Dept., Albany, 1944—Hollywood missed out on a great press agent when Clayton Seagears decided to go into wildlife conservation work, for in his recently-issued 80 page booklet, "The Fox in New York," he has done a fine bit of intelligent promotion for that well-known hero or villain (depending upon which side of the fence you are) of so many tragedies and comedies of our woods, the red fox. The writer of this inadequate tribute to a really excellent and painstakingly-accurate account of the life habits of *Vulpes Fulva* is entirely in accord with Mr. Seagears' conclusions, for to him the red fox has long been one of the woodland's most interesting inhabiatnts.

Those who howl the loudest for the extermination of this red fall guy of the upland pastures should read with care the chapters on "Fox Food Habits" and "The Significance of Fox Predation."

The whole text is written robustly and with a certain amount of clear-thinking, wistful humor, yet all the statements are backed up by diligent field research and there are tabulated enough results of abdomial excavations to satisfy the most critical laboratory enthusiast. Everything is covered from trends of fox abundance to fox hunting and trapping; the fallacy of the bounty system is clearly proven. The chapter on the six methods of hunting the fox in New York is a masterpiece and will make many an old fox hunter sigh for his vanished youth and send reminiscent twinges through his rheumatic joints.

This booklet should be in the hands of every conservationist, hunter, game protector and poultry farmer.

Other states are having predator problems, too. Because of a very high fox population throughout Illinois, the Natural History Survey recommends continuation of the unprotected status of this animal, and broadening of the provision to include the central and southern zones. This recommendation is made only for the biennium of 1945-47; after this date rabbits are expected to be so plentiful that foxes will be needed as controls.

Signs of Spring *(Continued from page 9)*

neath it rapidly rose. Snow in the woodlands first settled and then turned to a grayish slush. Old tracks long hidden by successive snowfalls once again showed plainly as the various layers coalesced.

The transformations that were wrought in a few brief hours were unbelievable. The glittering white countryside turned to a great piebald blanket as thin spots in the snow quickly melted, exposing dark patches of earth. The ice-glazed tunnels of mice, shrews and moles were the last to go, lingering until they too succumbed to the welcome warmth.



The ice-glazed tunnels of the Moles were the last to melt.

Later that morning the tree sparrows and juncos were not at haunts frequented during the more rigorous spells of weather. Now, impelled by the change they scattered over the farmsteads feeding avidly on food found on the newly exposed ground. Soon now they would be off for their nesting sites in the far north.

The clear whistles of cardinals sounded in the maples on Haw's Hill while from farther down the slope came the monotonous *yap-yap-yaps* of a couple of nuthatches. At the edge of the hemlocks a little dog from a nearby farm sniffed excitedly at the maze of fresh rabbit tracks he found there. Soon he disappeared among the trees stiffly wagging his stub of a tail.

In another day every run and rill was running full and clean; every stream a trout stream or so it seemed. The quiet power of a spring watercourse as it hums along is in vivid contrast to the petulantly feeble murmur of midsummer. The raw smell of snow water was as tonic as a breath of pine and just as heady. Fed by the snow water the creek threw off its icy fetters; its purring song becoming it as it does a plump, well-fed cat. A full stream is as satisfying to behold as a thrifty animal or a thriving plant.

Many of the trees responded magically, pumping mightily to swell their buds practically overnight. On the third day the more tender branches showed the first flush of color; the golden yellow of the willows, the purplish gray of red maples and the live green of poplars and aspens leading the throng. The refreshing greens of pines and hemlocks were complemented by the blue sky.

By week's end the rigors of a hard winter were all but forgotten. It scarcely seemed possible that but a few short days before we were still beset by one of the hardest winters ever known in these parts. Then, when the ruddy breast of the first robin was sighted and his robust *cheerily, cheerily, cheerily* was heard that evening, signs of spring could be relegated to that limbo of forgotten things because it *was* spring—or so we hoped.



Snow in the woodlands turned a grayish hue.

Bob's Private Life

(Continued from page 5)

circle about four feet in diameter. Both males seemed to be running as rapidly as possible during these encounters. No actual bodily contact was observed, but the mated bird indicated through his mein that, if necessary contact sufficient to put the challenger to immediate flight would be made. Ten minutes elapsed between the first and last of the meetings. The victorious male was then seen to cross a farm lane into a corn field together with his mate. Here the pair was accosted by another cock bird that had been whistling nearby, and which was seen to scurry along between two rows of corn for a distance of about thirty yards to join the harassed couple. The argument between the stranger and the mated bird was of short duration. Soon the challenger was observed returning along the route of intrusion, apparently convinced. During these challenges, the defending male was very noisy, uttering a rapid series of sharp notes each time it became necessary to drive the uninvited bird from the hen. At all times the hen seemed undisturbed. She went about her normal activity as if nothing out of the ordinary were happening.

In choosing a nesting site, a wide variety of selection was indicated by bobwhites as the following chart indicates. For convenience the hatching success of these nests is included.

TABLE I

Type of Location	Number of Nests	Successful	Unsuccessful
Fallow fields	9	4 or 44.4%	5 or 55.6%
Fence rows	9	2 or 22.2%	7 or 77.8%
Road edges	9	6 or 66.7%	3 or 33.3%
Hay fields (Timothy and clover mixed)	21	8 or 38.0%	13 or 62.0%
Hay fields—alfalfa	8	0	8 or 100.0%
Barley field	1	0	1 or 100.0%
Wheat field	1	0	1 or 100.0%
Ornamental shrubbery	1	0	1 or 100.0%
Peach orchard	1	0	1 or 100.0%
Cemetery lot	1	0	1 or 100.0%
Totals	61	20 or 32.79%	41 or 67.21%

The number of nests found in hay fields might seem to indicate a preference of this type of nesting cover. It was thought, however, that a greater percent of the total number of nests located in these fields was discovered during harvesting operations than could be found in the fallow field type of cover, for example. Had it been possible to search other types of nesting cover as thoroughly as were the hay fields, this apparent choice might not have been so evident.



Liberated Quail hen incubating nest of 13 eggs. Note clipped bill.

An attempt was made to classify the nests according to the distance from the chosen site to the nearest change in cover type. Results of this were so varied that nothing definite was established. The nest located nearest a cover change proved to be one foot distant, while the farthest from a change was fifty feet.

A large variety of materials was used in the construction of nests. While live material, such as an overhanging clump of grass or a leaning blackberry briar, was often incorporated, the material used in forming the nest proper was in every case dead. This dead matter was available within a few feet of the nest site. Although it proved unsuitable, bits of stubble were sometimes used, probably because it was near at hand. More adaptable materials such as the softer grasses were passed up in these cases even though it was available as near as ten feet distant.

The stems and leaves of the softer grasses such as red top and blue grass were widely utilized. This proved ideal material as it was easily worked into the desired shape. Nests were usually roofed with grass whenever available. In those cases in which the nests were constructed of stubble, roofs were not built, probably because the material was too short and brittle to be woven properly. Stubble was usually broken into short lengths so that it could be worked into the desired shape.

A typical quail nest was found to measure 5.5 inches from side to side, 5 inches front to rear and 1.75 inches in depth. These measurements were taken inside the nest at its widest points. The nest was set in a shallow depression hollowed out of the ground by the building bird. This wallow was 1.5 inches deep, six inches wide, and five inches front to rear in the typical nest. The dirt removed by this operation was piled around the edge of the hole forming a sort of lip. If the chosen site happened to be a steep bank, the dirt was utilized to level off a spot on which the nest might rest.

Many nests were furnished with roofs. Many were not. If the nest was completely roofed an opening 4 inches wide and 3.5 inches high was left. The distance from roof to floor was usually about six inches.

In order to study the density of cover immediately surrounding quail nests, typical areas were selected near the mouths of nests. The standing material, dead and alive, on these areas was clipped an inch from the ground. The stems were then counted and figures representing stems per square foot computed. In case the cover was in the nature of clusters, which was particularly true of orchard grass and afalfa, allowance was made for the specimen area to include an average amount of bare ground. Usually this was not necessary, however, as most of the nests were located in cover of a much more uniform nature.

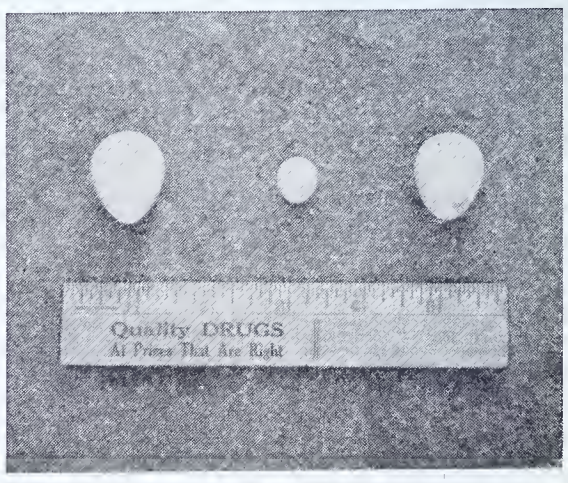
Sixteen of the nests thus classified were built in blue grass or red top grass which grew to an average height of 17 inches with a density of 440 stems per square foot. Twenty-one nests were built in timothy and clover averaging 38 inches in height and 320 stems per square foot. Orchard grass with 146, 40 inch stems per unit of area grew at the sites of 3 nests. Twenty inch alfalfa with 120 stems per square foot was present near 8 nests while two were built in fox-tail grass 16 inches tall, averaging 64 stems per square foot. Wheat and barley, with 80, 34 inch stems to the square foot, accounted for the cover at two, while marsh grass and smartweed were present at two more locations.

A wide choice of cover density was apparent. In cases where the surrounding cover was especially dense the birds probably flew to and from the nests, as no runways were apparent. Usually some nearby bush, tree, or fence post served as a perch upon which the bird might alight upon returning to the nest. From this point of vantage, the bird dropped to the nest, after first making sure that all was well in the vicinity. If the nest happened to be located in more open cover the birds probably walked to and from the site, trails or travel lanes leading from the mouths of some nests being evident.

All but two of the nests classified opened in a southerly direction, either directly south, or south of east or west. The ones located on steep banks invariably opened down hill, while those on gentle slopes were as apt to face uphill as down. Drainage of the site was good in all cases but one. The absence of any heavy rains over the area during the nesting season made this aspect of the chosen sites less important than it would have been had the area been subjected to heavy storms. None of the nests studied were abandoned because of high water.

Egg laying probably began soon after the nest was completed. A glance at some notes taken on one typical case would seem to indicate that the eggs were laid about midday.

The completed clutch of eggs varied in number from ten to twenty, with an average



Three eggs from the same nest.

Date and time of visit	Number of eggs in nest
June 12 11:45 A. M.	6
June 13 10:30 A. M.	7
June 15 10:30 A. M.	9
June 15 5:00 P. M.	10
June 16 10:15 A. M.	10
June 16 1:00 P. M.	11
June 20 9:45 A. M.	14
June 20 11:45 A. M.	14
June 20 4:25 P. M.	15
June 23 9:30 A. M.	17
June 23 4:30 P. M.	18
June 24 10:30 A. M.	18
June 26 9:45 A. M.	18

of 16. The apparent contradiction between this figure and the average number of chicks led from the nest as later indicated in the course of this article was brought about by the fact that many completed clutches were not successfully incubated.

The shells of eggs being incubated were found to be of a much smoother texture than those in incompleted clutches. The arrangement of the eggs in the nest also gave clues as to whether or not they were being incubated. Those in nests upon which the quail was setting were usually arranged in a single layer. If there were enough to more than cover the bottom of the nest the overflow was arranged about the sides in such a manner that they might be all covered by the incubating bird. Eggs in nests in which laying was not yet completed were often piled on top of one another.

Occasionally a hen quail may lay a very small egg. These runts do not hatch and occur infrequently. Usually the eggs are of a nearly uniform size. They are pure white in color but sometimes brownish yellow stains, the result of contact with damp nesting material, were apparent. This was noted more often in nests in which incubation had not yet begun and it was thought that these stains were worn off to some extent by setting hens, as they rearranged the eggs in the nest from time to time.

The incubation period has been set at about 23 days. Observation brought out the fact that all eggs which were to hatch in any given nest did so on the same day despite the fact that as much as twenty days' time elapsed between the appearance of the first and the last egg in some nests.

Incubating quail showed much individuality of behavior at the nest. Some departed hastily upon the approach of an intruder, giving no sign by their actions that a nest was nearby. Others "sat tight" and would not flush until nearly trod upon. One bird, a liberated quail, actually pecked at the hand of the observer much in the manner of a domestic hen, but no "native" or wild raised bird allowed such close approach.

Some of the setting birds ran from the nests stumbling and dragging a wing, chirping shrilly and fluttering about as if wounded. This, of course, was an attempt to attract the attention of the intruder. When followed a short distance these "wounded" birds flushed strong and well, believing they had saved their nests. Generally the longer the bird had incubated, the stronger was this protective urge. On one occasion a hen quail returned to incubate the remaining eggs in a nest from which a raiding skunk had removed seven. A second visit by the skunk, at which time an additional six eggs were taken, proved too much for the hen, and she deserted the nest. These eggs were in an advanced state of incubation and would probably have hatched within three or four days.



Two week old chicks on path of farm wagons.

A glance at table one shows that of a total of 61 nests located, only 20 were successfully hatched. This leaves 41 nests, or 67 percent of all nests, on the debit side of the account. This was considered a heavy loss to the quail population. A further breakdown of these figures into causes of failure is presented in table two.

TABLE II

Unsuccessful Nesting Attempts

Number of nests	Cause of failure
22	Destruction by mowing machine
5	Predation on adult bird at nest
4	Egg predation
3	Destruction due to mowing with hand scythe
2	Destruction due to reaping machine
2	Desertion due to activities of dogs at nest
1	Desertion due to activities of man at nest
1	Destruction due to manure spreader
1	Destruction due to cultivating orchard

Of these 41 failures, man in his various activities was responsible for 30, or 73%. The large number of nests mowed over during haying operations is important. One possible reason for this unwanted destruction lies in the fact that much of the harvesting was accomplished with mechanical aid. It was estimated by competent authority that 65% more farmers now own tractors than did eight years ago. When mowing was done with horse drawn machines, the progress was slower and the horses often frightened incubating birds from the nests far enough ahead of the cutter bar to give the operator an opportunity to raise the knives leaving a patch of cover over the nests. Quail often returned to complete hatching nests thus handled. With tractor drawn equipment, the progress about the field was so rapid that the operator had not sufficient time to save the nest even if the setting bird managed to escape the clicking knives. Many nests were mown over and raked over thus being hopelessly exposed before the harvester was aware of their presence. Quail were never known to return to nests thus exposed. The eggs in most of these nests were taken soon by wandering predators, particularly the crow.

Predation accounted for the destruction of nine nests. Of this number skunks accounted for two by stealing the eggs. House cats were held responsible for the destruction of three and in each case the incubating bird was killed as it sat upon the nest. The eggs were left undisturbed in the nest by the cats. On two occasions in which the destruction was traced to cats at least one egg was broken by the scuffle as the setting bird was sprung upon.

Blacksnakes destroyed two nests, robbing them of every egg. Crows broke up at least one, eating the eggs near the mouth of the nest. While crows were responsible for the disappearance of eggs from an undetermined number of nests, the actual destruction was usually attributed to other causes, principally harvesting operations as already mentioned. The crows simply happened upon the badly exposed nest of eggs and helped themselves. This is not an attempt to whitewash the crow's character, as he very well may be an important factor of nest destruction, but simply an effort to interpret the facts as they presented themselves.

The study of 20 successful nests showed that in 11 of them, 92.54% of all eggs hatched. In arriving at this figure only those nests visited very soon after hatching took place were considered. It was discovered, by placing a good egg or two among the shells of hatched eggs, that predators might later visit the nests and take the unhatched eggs. For this reason information gathered on nine successfully hatched clutches had to be disregarded as the nests were not visited soon enough after hatching took place.

The total number of eggs in the eleven successful nests was 174, an average of nearly 17 eggs per nest. On this number 161 hatched. Nine of the thirteen eggs not hatched proved infertile, two were pipped, and two contained chicks that had died in an advanced state of development.

In all cases in which the sex of the incubating bird could be determined, it proved to be a hen. Some observers have noted male quail incubating. This was not seen during the course of the investigation although opportunity for the male bird to take over care of the nest was presented in at least five instances, in which the in-

(Continued on page 29)

HUNTERS OF 1944

One steel-tipped arrow from the bow of Lester Newell, of Sharon, brought down a 225 pound bear in Forest County, on the 1,000 acre archery hunting preserve maintained by the State Game Commission on Fork Run. The arrow pierced the bear's heart at a distance of 40 yards.

The most exciting bear story of the past season comes from a Clearfield sportsman, Ray Johnson.

While seeking elusive Bruin in the rugged country about Keating between Field and Yost Runs, Clinton County, Johnson and his party decided that "every man for himself" might provide the greatest chances of shooting a bear. They separated, Johnson deciding to climb Yost Run Ridge where he could get a better view of the countryside.

After an uneventful watch of quite some duration he became a little bored and was just about to move to another spot when Fate, disguised this time as a slippery rock, stepped into the picture, almost causing Johnson to step out of it. The result was that he slid on the rock and descended hurriedly and without dignity over the ridge.



An 8-point 130 pounder shot in Juniata County, by Allen E. Suloff, right, Douglassville. With the lucky nimrod is a friend, John E. Stoner, of Mifflintown, Pa.

When he landed beside a large rock at the foot of the ridge he looked up into a pair of beautiful brown eyes. Only Johnson couldn't appreciate them at the moment since their owner and the occupant of the home under the rock was the growling, snarling 250 pounds villain of the story.

Annoyed at being disturbed by uninvited guests so early in the day and determined to make this one very unwelcome, the bear came out of his corner full of fight and made a lunge at Johnson. But Johnson knew just how to deal with impolite bears. Without stopping to consider how Bruin was going to look mounted over his fireplace, he beat him to the draw and shot him in the face, killing him with the first bullet and definitely making a future rug and not a mounted trophy.

Giving thanks to his guardian angel, who certainly was working time and a half on that assignment, Johnson called to his companions who, after a great deal of struggling and lugging, managed to get the bear over the ridge and on Johnson's car.

Envious local hunters declared it to be one of the most beautiful bears ever killed in Clinton County.

The Odds Were Against Him

(Continued from page 13)

as the offspring from the original pair were traceable as they hopelessly mixed with beavers subsequently purchased from Algonquin Park, Canada.

Experiment with one single pair of beavers having borne more fruit than was ever hoped for, the Commission purchased four pairs from Canada in 1919, twenty-four pairs in 1920, and six pairs in 1922, all of which were liberated on game refuges through the state. In 1924 an additional twelve pairs were purchased in New York State and also released on refuge areas.

It was virtually impossible to follow the spread of the animals after 1920, although every new colony was plotted on a special map in the offices of the Commission. This map was followed with much interest, and their occurrences in new regions were watched with the eagerness of a general and his staff noting the advance of an army into hostile territory. The creatures, fortunately, had few obstacles to confront. Man harmed them hardly at all, and only a small number of prosecutions for molesting or killing them were brought since they were first given protection in 1903.

Because of all these things, it was necessary, and is still necessary in many places for that matter, to live trap the animals and release them in other sections. Hundreds of them have already been trapped. This method of removing the creatures, while effective, is necessarily slow. However, it is perfectly harmless. For example: A large female beaver caught during the summer of 1930 produced six living young the day following, an indication that the trap causes no injury to the creatures. Incidentally, the six young beavers were brought to the Harrisburg office of the Commission, where they crawled about the floors for a while, causing much excitement and interest among the employees. They weighed only about a pound apiece, their eyes were open and the teeth of their lower jaws were almost fully formed.

Because they were protected and had no natural enemies to speak of the animals continued steadily to increase year by year to the point where it was well nigh impossible to approximate their numbers. However, as they continued to multiply, there arose, gradually at first but with ever increasing momentum, complaints of their depredations in many parts of the Commonwealth. The animals were forever getting into one sort of difficulty or another. They dammed up roads and mill races, damaged commercially valued trees on private property, occasionally selected water supply reservoirs and so on to the extent that the Game Commission was forced to take drastic action against them.

Not wanting to destroy what it had taken so many years to rebuild, officials decided against any wholesale trapping or killing of the animals. Instead it live-trapped hundreds of them in sections where the damage was great and released them in other areas where in some instances the damage even became greater as time went on. In fact live-trapping, while successful on a small scale, was not adequate enough to cope with the situation because it was both slow and laborious. Despite such operations beavers continued to increase so steadily, with a corresponding increase in damage complaints, that the Commission decided to permit sportsmen to harvest the surplus from time to time. In this way the creatures would be kept well under control and the trapper would receive some monetary reward for his efforts through the sale of the pelts.

Accordingly, the first open beaver trapping season in Pennsylvania was declared statewide in 1934, from March 1 to April 10. Regulations provided that the animals could be taken by trap only and not shot, that one individual could not set more than ten traps, that he could not take more than six beavers, and that within ten days afterwards the pelts had to be taken before the Game Protector of the County in which they were caught to be stamped and sealed before the fortunate individual was permitted to sell them legally.

During that year 6,455 beavers were taken in 50 of the 67 counties. No season was declared in 1935, but in 1936 another state-wide season was established between March 16 to March 31, when 2,261 beavers were taken in 49 of the 67 counties. Another state-wide season was declared in 1937 from March 1 to March 15, at which time 1,222 animals were taken in 50 of the 67 counties. In 1938 the season was limited to 18 counties only from February 15 to February 28, during which time 541 beavers were taken. In 1939 the open counties were limited to 8, from February 15 to February 28, during which 353 were taken. Twenty counties were open in 1940 from January 15 to January 31, when 703 beavers were taken in 19 counties. In 1941 forty counties were open from March 1 to March 15, and a total of 1,195 animals were removed from 28 counties. In 1942 there were 1,140 taken from February 14 to February 28 in 36 out of 53 counties open. In 1943, from February 15 to February 28 there were 2,011 taken in 40 counties out of the 67 during a state-wide season; from February 15 to February 29, 1944, there were 1,281 taken in 20 out of 22 counties. All in all, a total of 17,162 beavers have been trapped since 1934, having an estimated fur value of approximately twelve dollars per pelt, of $205,944.

There is every reason from the foregoing to believe that if they continue to be managed wisely, these much-sought-after furbearers will perpetuate their numbers sufficiently to guarantee a fair annual harvest for many years to come.

It's an Ill Wind...

(Continued from page 3)

for the grains they purchased did not hinder these conservation-minded citizens from doing what they could to aid their furry and feathered friends. From their club funds they purchased grains and green stuffs. Large amounts of grain were contributed by farmers interested in the project and given to the sportsmen's clubs for distribution. In addition to their presentations of game food, farmers also in many cases saw to it that game on their farmlands did not go hungry.

In one section the local chapter of the Izaak Walton League bought 4,065 pounds of wheat, hay, crab apple cuttings, shell and cob corn and travelled many miles over icy roads to distribute it to feeding shelters and other places where game would find it.

In various counties, including Clinton, Dauphin and Union, sportsmen hired planes to distribute game food in wooded areas, especially in turkey districts, and in places where the congregation points of wild animals were definitely known. Feeding by plane has generally been considered impractical because when this method was first used the feed was scattered promiscuously and much of it was wasted. Clinton County sportsmen reported that a check by trappers and landowners had been made on some of the "food bombs" dropped by plane and they stated that the feed was found and eaten by wild creatures (either pheasants, deer, squirrels, rabbits or turkeys) within 24 hours after it was dropped. Feeding in this manner is worth future consideration as time-saving device, though probably less efficient. Food can be dropped by plane in dense wooded sections where sportsmen could not penetrate even on snowshoes.

Every year the sportsmen of Allegheny County have been making a winter feeding pilgrimage into the northern counties in which they do their fall hunting. This year deep snows and bad travelling conditions prevented the trip. But realizing that the feeding of game was even more important this year than in past winters generous financial contributions were made to the northern country sportsmen for purchase and distribution of game food.

Boy Scouts added their bit to the program by building feeding shelters in locations where small game and songbirds were most likely to congregate and keeping them supplied with food.

Every effort, regardless of how puny it is, deserves some recognition, even down to the city housewife who puts bread crumbs on her back porch for the song birds, even the lowly English sparrows. Other individuals with access to game territory can do more.

Trainmen on the Reading Railroad through the South Mountain noticing game near the tracks collected carrot tops, cabbage leaves and other grocery wastes from home and each day while crossing the mountain threw the greens out in the snow where they would be found and appreciated by wild creatures.

An example of altruism was demonstrated in the case of an upstate dentist whose office was twice burned out and who spent a great part of the winter in the hospital with a broken hip. With all his misfortune, this man became interested in winter feeding and though he never hunted, contributed 25 bushels of corn to the local sportsmen's organization.

The manager of a bakery in a western county scattered bread crumbs and other leftover odds and ends from his bakery shop to keep alive more than 150 pheasants driven into town by the deep snow. Songbirds and rabbits also congregated in a vacant lot adjoining his home to receive their daily ration of bread crumbs. Other bakeries turned over large quantities of stale bread to help save the wild creatures.

Some individuals spent their previous ration of gasoline in behalf of our furred and feathered friends, making many long trips as far as they could go by car and then hiking several miles on snowshoes to keep feeding stations replenished for the flocks of turkeys which through these efforts will come through the winter alive.

A farmer ran his tractor some thirty miles to open a road over a Clinton County mountain which had become impassable for automobiles which enabled the feeding of turkey flocks in the White Deer region.

These efforts with numerous others have caused the losses of game due to severe weather conditions to be lower than expected.

The magnitude of the feeding program has been evidenced from articles appearing in local papers, citing the activities of this club or that, as well as by individual reports from the clubs themselves. Just how extensive the program was will not be known until the emergency passes, at which time the Commission hopes that every sportsmen and other cooperating group will report the amount of grain distributed, the number of hours spent in these activities, and other items of importance. That information will be assembled for a report to the readers of the GAME NEWS.



Left, Samuel Holmes, center, Charles Barber, and right, Bernard Gorton all, of Thompson, Pa., with two nice 8-point bucks killed by Holmes and Gordon in 1939. The animals weighed 160 and 163 pounds respectively.



A 150 pound 16-pointer killed in Montgomery County by Charles Keyser of Pennsburg last season.



Martin T. Shaffer, Towanda, proudly displays two foxes killed by Nathan O. Shaffer.

Woodchuck Defense

(Continued from page 11)

curacy and perfect kills up to 500 yards if used in a good bolt action with scope; 90 and 125 grain bullets are only for the man who loads his own cartridges. The fine accuracy and long range kills which the Roberts cartridge in Winchester Model 70 or Remington Models 30S or 720S, or hand built rifles guarantee can only be realized by the man who has a good scope and hand loads his own ammunition. Care should be taken with the heavy bullets in the .25 caliber as they are in the deer rifle class. Choose a bullet that breaks up readily.

As in the .22 caliber class, we have many wildcat .25 caliber rifles, some very accurate; also .257 magnums. What the chuck is not interested in is a .257 caliber using a 100 to 125 grain bullet. giving 3,000 feet velocity at 500 yards plus 2 inch groups, but that is one of the ambitions of a real chuck hunter.

Then we have the Winchester .270 cartridge which when used in their Model 70 or Remington Model 720, from 4 to 10 power scope sighted, gives a good account of itself. However it should not be used in thickly settled country. The .270 caliber magnums and specials follow the Winchester .270 the same as in .22 and .25 calibers, but most of the designers of .270 caliber magnums are working for a better big game rifle, and not a chuck gun although they strive for chuck accuracy.



Don't let that deer rifle of yours rest all summer, be it 30/30, .300 Savage, 30/40 Krag, .32 Special or one of the other popular rifles. They are safe to use on chucks if you watch your background and do not take any foolish shots. Any chuck will enjoy being shot or shot at by any of the deer class rifles because it elevates him into the same game class as bear and deer.

The famous 30/06 caliber in a good bolt gun, scope sighted, using the lighter weight bullets, 93 and 110 grain (hand loaded) 150 grain factory loaded makes a very good outfit for 'hog hunting.

My own chuck outfit consists of a .257 caliber Roberts Model 30S Remington with a 26 inch Sukelle heavy barrel, on which is mounted a 15 power Lyman super target spot. I hand load all my cartridges and have used for the last two seasons a 43.5 grain No. 4064 DuPont powder back of a 90 grain soft point, hand made bullet, with a Remington No. 9½ N.M. N.C. primer.

I find a 6 power B & M binocular useful in spotting chucks. I do not say that this is the best chuck outfit, but to date it is the best I ever used. After the boys in service come home, and new equipment is available, a new outfit for me and the chucks.

Of all chucks killed so far by me, there are two outstanding ones I will mention. Number 1 is a jet black chuck killed in 1942 in the north central part of Pennsylvania. Number 2 is a chuck almost white with a tail that is black tipped, killed in 1944 in Potter County. I have both animals mounted.

When you hunt chucks *kill* them or let them go for another hunter. Don't try shots so far that you know your rifle is not capable of making clean kills. If possible get a good scope, as cheap scopes are not as good as peep sights.

Any man who has not had the pleasure in the late summer months to hold the cross-hair (or T.K. Lee center dot) on a chuck at 300 yards, then carefully squeeze the trigger and hear the plop of a bullet has missed some of the finest rifle sport there is in the East.

Keep that 'chuck on the *game* list. Protect him. He offers rifle shooting for years to come, and will make America a Nation of Riflemen



History In the Making

(Continued from page 6)

posed memorial arboretum and recommended that all development work incident thereto be handled with Commission funds and that contributions from sportsmen be used for the purchase of plantings and other materials needed, and for a suitable plaque.

Dr. Kilgus submitted a progress report at a meeting of the Commission held January 11, 1945, stating that due to unfavorable weather conditions he had been unable to get his committee together to examine the proposed site, but that the committee planned to study the possibilities from all angles and to develop the area agreed upon to serve as a study laboratory to aid the Commission in its land management program.

In this connection it should be made clear that plans for the arboretum are only in the formative stage at this time, and may not be developed until after the war.

However the time is ripe for acquainting our readers with what is going to happen and enlist their support when the time comes.

It having been decided that representative sportsmen should be on the committee,



A living natural memorial also provides a sanctuary for wildlife.

President Leffler appointed the following additional members:

Dr. A. W. Henn, Carnegie Museum, Pittsburgh.

Dr. O. E. Jennings, Carnegie Museum, Pittsburgh.

Dr. R. D. Anthony, Pennsylvania State College, State College.

Prof. Victor Beede, Head of the Forestry School, State College.

Harry B. Hostetter, Lancaster.

John W. Hershey, Secretary, Pennsylvania Nut Growers Association, Downingtown.

Hon. Francis H. Coffin, former Commissioner, Scranton.

Patrick J. O'Connor, President, United Sportsmen of Pennsylvania, Wilkes-Barre.

Harry R. Hyde, Ridgway.

Harry C. Stackpole, St. Marys (Since deceased).

Col. William Kaul, St. Marys.

Ed.—Next month Mr. Conklin will present a complete story on the Commission's Land Purchase Program during the past quarter of a century. Look for it! Read it!

Bob's Private Life

(Continued from page 25)

cubating bird, presumably the hen, was killed. One brood of young quail, probably only two or three days old, was known to be under the sole care of a cock quail. On another occasion a cock quail was known to have taken over the rearing of a brood of newly hatched young after the hen was killed by a mowing machine as she brooded her charges at or very near the nest.

One farmer told of having mowed over a nest of 17 eggs. He collected these eggs and hatched fifteen of them under a setting hen. These were held in captivity for more than a week. They proved to be a great deal of trouble as they insisted upon an insect diet which the farmer furnished with difficulty. The chicks were liberated near a pair of adult quail that led their own brood nearby. The new chicks were readily adopted into the family, and the group remained together during the following fall and winter.

Two cases in which young quail were adopted after being picked up and held by misguided nature lovers, who thought the chicks abandoned, were reported. In one case the adopting bird was a cock quail while in the other, a pair of adults took over the care of the young.

The average completed clutch of eggs known to be in incubation numbered 16. On the basis of known hatchability 15 young quail left each nest. Add to this figure the two parent birds, and the family group numbers 17 individuals.

Twenty fall coveys were found to average 12 birds each. This would indicate a mortality of 5 birds out of each 17 that left the nest site. This amounts to about 30% loss during the summer and early fall. Some of these coveys were located during the hunting season and may have been shot into, although hunting pressure on the areas studied was very light.

Attempts have been made in the past to add to the existing quail populations by means of liberating birds raised in captivity. Some experimental releases of this nature were made during the past spring and summer. Many observations of these liberations were recorded in an effort to learn as much as possible of the success or failure of different methods of release.

One of the principal obstacles to successful observation was the inability of the observer to distinguish at any distance between released birds and those already in the field. Most of the liberated birds were banded with metal leg bands. These identifying marks could only be seen at very close range, however. Others have tried marking released birds by attaching white or colored feathers to them. This method is not satisfactory as the marker feather is usually soon shed. The leg band, while not adaptable to very young quail, remains the most successful method of marking released birds. It is especially good if the birds can be brought to hand after release.

Certain behavior characteristics of released birds set them apart from other birds for varying length of time. Usually the liberated birds were tamer and allowed closer approach before flushing. Also farm raised birds were more voluble, frequently chattering and talking to one another upon being excited. This was not nearly so noticeable among birds that had been in the field for any length of time. Newly released birds seemed incapable of strong sustained flight comparable to that of quail resident long enough to accustom themselves to their environment, and gain strength of wing through frequent use thereof. Newly liberated birds seemed to be easy prey to the many predators usually present at or near release sites. This was particularly true during the first few days following release. One quail was taken immediately upon release by a Cooper's hawk, as the observer stood helplessly by watching the ridiculous ease with which the hawk overtook the fleeing quail.

On April 7, four quail were freed in what was considered adequate cover. One of these birds was all that could be found when the area was visited the following day. On the next visit a pile of feathers, marking the spot where some predator had eaten a cock quail within ten yards of the release point, was all that could be found. Several days later this area was searched thoroughly with the aid of a good bird dog. Not a bird was found.

Ten farm-raised quail were liberated on April 7, on an abandoned farm. On the eighth of the month the remains of a cock quail were found about 150 yards from the release point. On April 26, the remains of another kill were found nearby. On the eleventh of May, six birds remained. This particular release was made on an area previously subjected to a determined and

(Turn page)



John Keating of Eau Clair, with a 12-pointer killed in Butler County in 1940. The little nimrod is his grandson.



Nice 8-point shot by C. K. Kraska, left, Beaver Falls, while hunting in McKean County with L. B. Morek.



A dandy 5-point killed December 1, last year, by Charles J. Dencklau of Plainfield, New Jersey.

Bob's Private Life

(Continued from page 29)

successful predator control program. This fall, two coveys of quail were found nearby. This release was one of the most successful, probably due to the strict predator program referred to above.

Many reports of quail traveling from the point of liberation to the vicinity of farm buildings were received. These birds were raised, as before mentioned, on game farms. They had become accustomed to the presence of buildings of some sort and to the ministrations of humans in their everyday life. Little wonder then that upon being thrust into strange surroundings and forced to take care of themselves as best they might, they sought out more familiar surroundings whenever possible. As most farmers kept from one to several cats, it was considered unwise to release quail near buildings. Whenever possible the birds were liberated far enough from dwellings that the attraction thereof might not be so evident.

One farmer reported seeing his cat attempting to catch a banded quail in the farmyard. The cat was dissuaded. Unfortunately it was believed that cats were usually more successful than this one was. Four quail were known to have been killed near farm buildings by cats.

A hen quail, banded and released on April 7, was reported to have been observed entering and leaving the space beneath the front porch of a farmhouse several times. Later this bird led a brood of six young quails about the yard. The farmer reporting this kept no cats.

At another farm, a hen quail was reported to have laid a single egg on the floor of a child's playhouse and disappeared. She did not return.

Two days after release, a cock quail wandered onto the lawn of a farmhouse and was captured by one of the farmer's children. After it had fed well on growing mash with the farmer's domestic chicks and drunk its fill of water from the chicks' supply, the quail disappeared and was not seen again. This quail had been released on June 6, in favorable surroundings, a half mile from the farm buildings. It had travelled through growing wheat and hay fields in which insect life was abundant, crossed a small stream where water was available, and wandered onto the lawn of a farm, nearly exhausted. Possibly the clumsy attempt of some inexpert predator to catch the quail explained why it should act as it did. However, the fact that a child was able to pick the bird up would tend to contradict this theory.

On June 6, a banded hen quail was released together with another hen and two cocks in a brushy fence row between a corn field and a hay field. By August 1, this hen had travelled a distance of half a mile, chosen a wild mate, completed a clutch of thirteen eggs and incubated them for nearly three weeks. The nest she was occupying was discovered by a highway maintenance crew cutting grass along the right of way, and unfortunately the nest was exposed before being discovered. On August 9, two broken eggs in the nest and several feathers nearby led the observer to believe that the hen had been killed on the nest. She was not seen again.

Since one of the principal obstacles to the success of quail releases was thought to be the birds' tameness after liberation, and with the possibility in mind of overcoming this undesirable characteristic, several releases, each consisting of two-week old quail chicks with adopted quail parents, were made. Brief histories of these liberations follow.

Release No. 1, consisting of a hen and three chicks, was made on June 23. The last time this hen was seen was on July 8, at which time she had only one chick with her.

Release No. 2, made the same day, was composed of a cock quail and six chicks. On July 3, this adult was again observed. He apparently was alone and probably had lost his charge as he was heard using the familiar "bob white" call, not usually given by quail in charge of broods of young.

Release No. 3, a hen and eight chicks, was not observed after liberation on June 23, although a dead chick was found near the point of release on June 24. The area immediately surrounding this release was searched thoroughly at least six times.

A hen and twelve chicks released July 6, were not observed subsequently, although frequent attempts were made to locate them.

A cock quail and thirteen chicks wandered into a farm yard the evening following their liberation on July 6. On July 17, this group was again observed nearby. By August 24, eight of these birds still remained together. This was the most successful of the several releases of this type.

Fourteen chicks watched over by an adult quail hen were freed near a rail fence. The subsequent discovery of a quail nest in which sixteen eggs had been hatched nearby made it impossible to know for certain whether quail observed after liberation was made were released birds or wild hatched birds from this nest. Fourteen quail were observed on this area in December. Unfortunately the estimated age of the wild-hatched birds was about the same as those released. Observations throughout the summer showed that the area was frequented by at least one brood.



Every year the Commission releases quail for restocking purposes.

A cock quail accompanied by thirteen chicks when released July 6, was seen again on July 18, with only two chicks remaining. The birds were not found again, although the surrounding territory was thoroughly searched several times with the aid of a bird dog.

A hen with fourteen young quail, freed July 6, in a truck garden near a wheat field was observed about 150 yards from the point of liberation on July 21. This time she was accompanied by an unbanded male. No chicks were seen although the pair of adults were watched for twenty minutes as they fed along the edge of a farm lane. This area was searched carefully on later dates but no further contact was made with quail here.

A cock quail and fourteen chicks liberated together on July 6, were not found on several subsequent trips to the surrounding areas. A farmer reported seeing "several chicks" near this release point on August 16. However, the appearance of eighteen wild-hatched chicks upon this range was noted on July 22.

While the foregoing accounts are admittedly sketchy and possibly inconclusive, the fact remains that only one out of nine of these experimental releases is known to have been a success. Since there was no way of marking the released chicks, their future identification is impossible. The adults were banded and may be recognized if encountered later.

Reports of banded quail freed in large groups in September and collected by hunters during the November open season indicate that many of these birds travelled considerable distances, three of them being collected fully one mile from where they were liberated.

Less than two percent of all banded birds released during the past spring, summer, and early fall were reported taken by hunters in the November open season. It is believed that more banded birds may have been taken and no report made of the fact. There is a mistaken belief among hunters that the killing of a banded bird constitutes an unwanted act that if discovered will bring malediction upon the head of the perpetrator. This is, of course, not the truth. Birds are banded upon release for the sole purpose of future identification. There is nothing unsportsmanlike connected with the killing of these banded birds if it is done in the open season, by legal methods.

Many of the aspects of the quail problem in Pennsylvania, such as the food habits of resident and migrant predators over the range, the food preferences of the quail, methods of investigation, cover preference, covey movements, and a host of similar problems have been hastily treated or not touched upon in this article. It is hoped that continued observation may clear up some of the uncertainties surrounding "Bob's" existence.

Colinus virginianus is sometimes inexplainable, always unpredictable. He is at all times a grand little bird—"May his tribe increase."

Importation of Live Birds

(Continued from page 10)

turned over to some public zoo, or as a last resort asphyxiated.

Among the animals that can readily be brought in under permits with least possible trouble, and which seem popular with the GI Joes, may be mentioned monkeys, marmosets, agoutis, coatimundis, ant eaters, kinkajous, honey bears, many members of the cat tribe, and others. Birds, of too many species to mention, arrive almost daily at some U. S. port. No migratory bird that is of a species native to this country will be permitted to enter unless the importer is the holder of a Federal scientific bird permit, or unless the bird is consigned to some scientific institution that needs no permit to possess them. Among the birds and animals not already mentioned that cannot come in for any purpose are the skylark, European bullfinch, house myna, Chinese myna or starling, European yellow hammer, greenfinch, chaffinch, the black rat, brown rat, common house mouse, European rabbit and European hare.

Contrary to statements that have appeared in the Press and been broadcast over the radio, the hill or talking myna from India is not among those birds the entry of which is prohibited. The error probably resulted because this bird is related to the starlings. Also, contrary to public statements the importation of parrots is not prohibited. However, returning service men and women are advised to abandon any member of the parrot family before beginning their journey home. Parrots are subject to inspection, and, in most cases, to a six months' quarantine at the expense of the importer under Regulations promulgated by the U. S. Health Service. Of course, this is to prevent the entry of any birds afflicted with psittacosis or parrot fever. Incidentally, the States of Connecticut, New York, Maryland and Florida absolutely prohibit the entry of any member of the parrot family; also, *the City of Pittsburgh, Pennsylvania.* Parakeets or love birds may not be taken into California, Maine, Minnesota and Oregon. Furthermore, the War Department has issued stringent orders concerning the transportation of parrots and, in fact, other birds and animals also in government planes.

During the last fiscal year ending June 30, 1944, the Fish and Wildlife Service issued 993 importation permits, under which 17,308 birds and 11,080 animals were brought into the United States. These numbers are small compared to the numbers entered before the present war. There has been a decided increase during the first six months of the present fiscal year beginning July 1, 1944, over the same six months period of the previous year in both numbers of permits issued and birds and animals entered. In past years, monkeys from India, canaries from Japan and Germany, and bobwhite quail from Mexico, ran into the hundreds of thousands per annum, and they will enter in large numbers again after the war.

Most of the monkeys brought in are used for scientific purposes, generally in connection with the study of infantile paralysis. Monkey shipments naturally decreased when the submarine menace was at its height. There was a great loss in transportation at that time, if and when ships could be found to take them. Boats loaded at Calcutta would dodge the subs by roundabout courses, taking months sometimes, and men were more interested in watching out for torpedoes than in feeding and watering the monkeys. The animals were neglected, and shipments of 500 rhesus monkeys would arrive unexpectedly at some Atlantic port with perhaps only 200 animals surviving the sea voyage. This now is not the case, however, as the submarine menace on our Atlantic coast was conquered.

Members of the military service are also frequently in a jam when they bring back with them as souvenirs, or for the wife's or sweetheart's hat, the plumes and feathers of wild birds. Their importation into this country is absolutely prohibited by the Tariff Act of 1935, excepting for scientific purposes. Many a boy or girl is now mourning the loss of a bird of paradise skin, or a bunch of aigrettes, obtained in some foreign country. In such cases, a very firm but polite U. S. Customs official seizes the feathers, and they are either destroyed or turned over to the Fish and Wildlife Service, or to some museum or scientific institution.

Lay off, boys and girls, of the feathers of wild birds, and parrots also. They mean headaches when you arrive home. Live bird and animal entries can be consummated on arrival by telegrams, at the expense of the importer, if they are the regular run of the mill, but not parrots. If application is made to the Fish and Wildlife Service, Chicago, Illinois, for a permit, either by letter, wire or long distance telephone, be sure to name the number, species, exact port of entry, and the approximate time of arrival at the U. S. border. The permit is valid only at the port mentioned therein and for a period of 30 days. The Service will supply you with sympathetic advice and the required permit, if possible, and speedily.



Ralph Rood, Alderson R. No. 1, with a 250 lb. bruin he bagged last season. Ralph is 16 years old.



Photo by David B. Blair

A 150 pound, 16-pointer killed in Montgomery County last season by Charles Keyser of Pensburg.



Mrs. A. W. Meas, Harrisburg, R. 2, with a 7-point, 180 pounder she bagged on December 2 last season in Dauphin County. Good going, Mrs. Meas.

A WINTER SCENE

By GEO. DYAK

I saw today a lovely lane
With broad and brooding trees;
Their wide-spread limbs were sheltering
Against the winter's breeze.

This little lane in cleanliness
Seemed to breathe, "Step in!"
There's peace and welcome waiting here,
Free from man-made sin.

And once within that little lane
I heard a loving sigh;
And saw the maples bend their heads
In prayer to the sky.

I felt somehow an essence pure
Within this lane so calm;
It flowed there in a stream eternal
With clean and healing balm.

What made me pause as I passed through
This lane of starry white?
Perhaps to learn the meaning of—
There's peace in winter's sight.

ANSWERS TO "WHAT'S WRONG"

1. Beavers do not use their tails as trowels, spades nor wheel-barrows when collecting mud to strengthen their dams. Their tails are used as rudders when swimming and for smacking the water as a danger signal.

2. The male ruby-throated hummingbird (shown in the drawing to be a male by his dark throat) never incubates the eggs. In fact he takes no part in the nest-building, but with his needle-like bill is an indomitable defender against any predator attacking the nest.

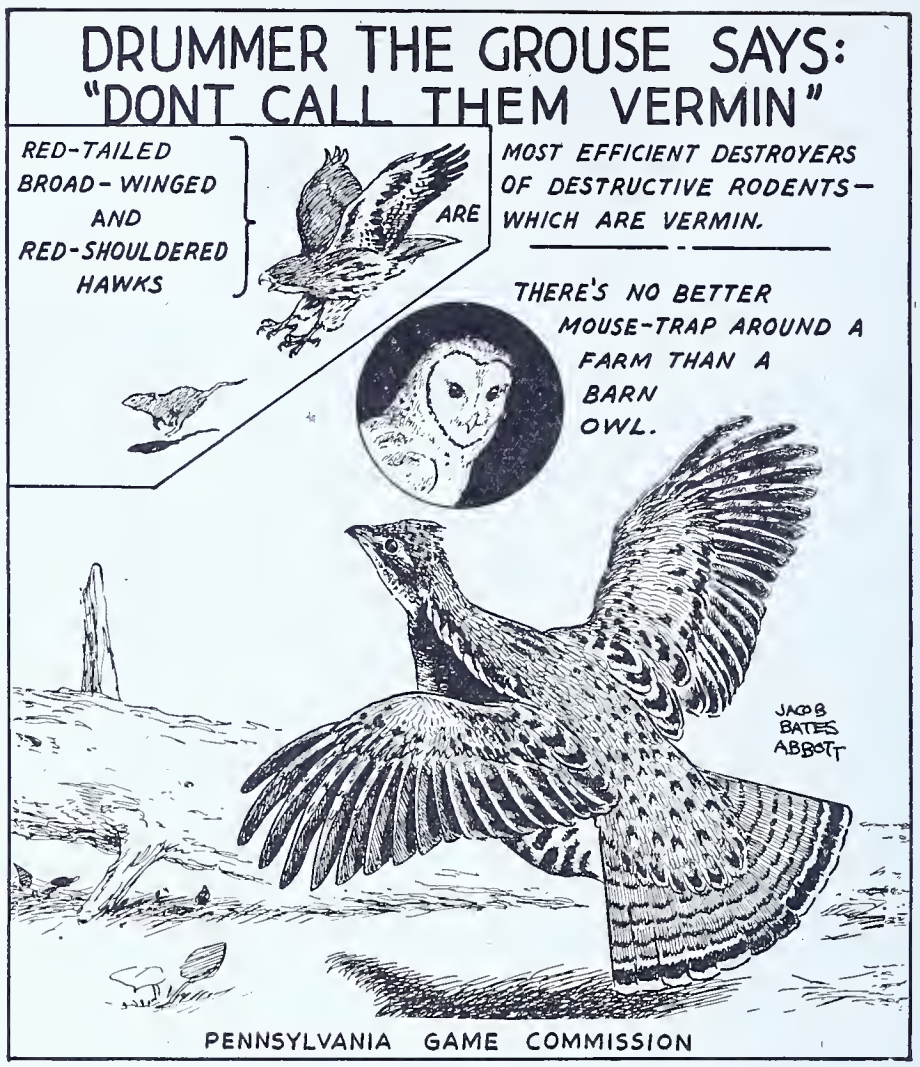
3. Porcupines cannot throw their quills. The tail quills do, however, become loose in their sheaths and the slightest contact will release them.

4. This one is O.K. A horse hair lariat is no barrier to a rattlesnake, despite popular belief to the contrary. I have a photograph of a big western diamond-back crawling over a bunch of wicked cholla cactus. Their belly scales are tough.

5. The toes of a ruffed grouse are feathered in winter.



Victory bear bagged by J. E. Hazlett and son, Bill, in the Hick's Run section of Cameron County. Both are members of the Plumsville Hunting Club.



With Those in Service

(Continued from page 14)

a bird and animal collection from this part of the world.

"Five more days will bring our overseas time to eighteen months. This makes us eligible for rotation but will probably take another six months before we actually start to be rotated home."—Sgt. John S. Shuler 33571145, 699th M. P. Co., APO 689, c/o Postmaster, New York.

"I finally landed in Dutch East Indies. Some place! Lots of wild parrots around. We are living in tents with coral rock floors. All the comforts of home! Ha! No light, so we must write during the day. Lots of natives here. They are friendly toward us. Glad of that. Say hello to the gang at the office."—Staff Sergeant J. L. Latimer, 33013520, 263 Repl. Co. 11th Bn. A.N.F., APO 950, c/o P.M., San Francisco.

Wedding

Chief Gunners Mate William A. Moyer, USNR, former game protector of Lehigh County, and Louise Eaton Buenzle of the WAVES were married in Miami, Florida, on Saturday, January 20. Both are stationed at Hollywood, Florida, at the Naval Air Gunner's school where Chief Gunners Mate Moyer is instructor of small arms.

On February 11 sportsmen from Luzerne County journeyed to Game Lands 57 to cut deer browse. Game Protector Philip Sloan and bulldozer operator C. S. Weed, after working for one full week, succeeded in opening the roads permitting auto travel over the mountain.

The party met Game Protector Sloan about 10:30 A. M. and proceeded with axes and brush hooks until 1:00 P. M. when lunch consisting of hot dogs, coffee, and cookies, was served. After one hour for lunch the party again resumed cutting until 5:00 P. M. when all returned home tired but happy with the thought that their work was appreciated by the hungry deer.

The party consisted of George Renoe, Sam Gedrocz, Joseph Schappert, Russell Womelsdorf, Ed Woyciechowski, Boyd Sackett, Elmer Major, Robert Culp, Gordon Llewellyn, Albert D. Llewellyn, Willard Durbin, Buddy Schappert, Boyd Sackett, Jr., Bob Johnson, Bob Lacey, Game Protector Philip Sloan, and J. J. Slautterback, Wildlife Technician.

Veteran Adams County nimrod, F. Mark Bream, of Gettysburg, celebrated his seventy-first birthday anniversary on last Thanksgiving Day. The following big game season marked his fifty-fourth hunting season. Mr. Bream's record of activity and enthusiasm as a sportsman is one that any hunter might well envy.

Victor Martini, of Drums, attracted some attention when he shot a cinnamon bear. This was reported to be first brown bear to be killed on North Mountain in thirty years.

855